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THE
PHYSICIAN FOR ALL.

TRANSLATION OF GREEK MOTTO.

“I hate the man who is slow to aid his countrymen, while swift to inflict great harm upon them; and full of devices for his own advantage, but useless to his own city.”

THE
PHYSICIAN FOR ALL;

HIS
PHILOSOPHY,

HIS
EXPERIENCE,
AND HIS
MISSION.



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“μίσῶ πολίτην, ὅστις ὠφελεῖν πάτραν
βραδὺς φανεῖται, μεγάλα δὲ βλαπτεῖν ταχὺς
καὶ πόριμον αὐτῷ, τῇ πόλει δ' ἄμνηχανον.”

—ARISTOPHANES RANÆ. 1427.

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Dedication.

TO THE RIGHT HONOURABLE
VISCOUNT PALMERSTON, G.C.B.,

Her Majesty's First Lord of the Treasury.

MY LORD,

As the events of a day are teeming with an amount of interest equal to that of an age of by-gone times, a comprehensiveness of mind adequate to the period is indispensable.

Changes, critical and momentous, are proceeding in the political constitution of the world, and large cessions are devolving to your Lordship, in proof of your eminent fitness to adjust the requisite remedy to the consequent emergency.

The following pages treat of a constitution, the objects and changes of which, are lessons meet for the highest human intelligence; to your Lordship therefore, with kind permission, I now most respectfully dedicate them; and have the honour to remain,

MY LORD,

YOUR LORDSHIP'S very obedient Servant,

JOHN SPURGIN.



PREFACE.

To attain truth is a desire of our nature that springs up conjointly with our rational faculty.

No science—no art exists, but what owes its origin, and its progress, to the union of these co-operative agencies.

The truth desired, pertains to every pursuit, for no man devotes himself to a vocation, but with a wish to be provided with the readiest method of bringing its objects to bear successfully.

The best method is the truth most applicable to the especial necessity; whether, therefore, the true principles of religion, or of government, or of civil life, or of philosophy, are contended for, the contest is a result of contrary views, not only as to what is most true, but as to what is best.

The imperfection of human nature is doubtless the origin of such contrary views. Self-love, as opposed to the love of goodness and of all its

derivative virtues,—and self-conceit, as opposed to the love of truth and of all its consequent excellences ; have unitedly begotten an heterogeneous family that has overrun the earth with its confusion of tongues and with its woeful tendencies. Still the desire for truth is the redeeming quality, for it contains the regenerating force and the improving power, and therefore, survives the devastating fire of lust, and the inundating flood of error. It is as the “ark of our safety,” and even as “our land of promise,” though subject to trial and difficulty for its purification from the defilements of selfishness.

These observations are applicable to every rank and class of human society. But further, every individual is distinguishable by his aims, as much so as by his form and countenance ; and more than this, for his aims determine his real nature, and also his destiny. To attain truth involves, therefore, not only the aims which have respect to self-interest, but those also which regard the welfare of others ; the former constitute a body of powers, with a circulating life, such as distinguishes the reptile and savage races ; the latter constitute a vast

society, with an animating life that imparts to it dignity and happiness.

It is my object in the following pages to demonstrate that the one class of aims has absolutely impaired the nature of our blood, and disordered the constitution of our bodies; whilst the other serves as the ground upon which the great truths of Revelation, and the positive facts of Science, can operate for the restoration of health to every human faculty.

As a physician, I have to do with human nature as I find it in reference to its every faculty, whether corporeal or mental, and I have also, through a long career of observation, sought out such principles for my guidance as, according to my experience, best meet the exigencies of humanity, and are best calculated to promote and re-establish its welfare. I have endeavoured, moreover, to place my philosophy, my experience, and my mission, on a broad basis, with a single eye to the utmost usefulness; and to those who would question it, I will only say, that "*He that answereth a matter before he understandeth it, it is a folly and a shame unto him.*"*

* Proverbs xviii. 13.



THE PHYSICIAN FOR ALL.

I ENTER upon my task, strongly impressed with the conviction, that nature unveils herself to such minds alone as are developed and perfected by experience and qualified by scientific and general culture. In discussing, therefore, the duties which the Physician, as the student of nature, has to perform, and which introduce him into every sphere, I am constrained to notice both the philosophy and the experience which best qualify him for his mission, and thus constitute him, in fact, the "Physician for All." The great object, then, of his philosophy, must be that which, as a general principle, pervades his whole professional system, and serves as a clue to conduct him through the labyrinth of infinities that surround him: this object is, in short, the blood,—the knowledge of which, and of all its relations, whether healthy or morbid, is most essential to him to possess. Its healthy and morbid conditions rule essentially in every department of life, both active and sentient, and prove a constant source of observation as productive of good and evil in the world. But as I shall be expected to treat, in the following pages, of this most wonderful fluid as the

great source of disease, and, with a view to cure, I declare myself, at the outset, to be at issue with all who tamper with the healing art by their pretensions to a healing power, consisting of some single plan of treatment to meet all the multifarious forms of disease. For whether nature be studied in her universal extent, or in an individual system, she is found to respect order even in the work of repair; her processes being all marked by an orderly progression, so that in whatever department she may be investigated, she courts that intellect only which can comprehend her objects, perceive her reasons, and adhere to her conclusions as so many indisputable facts. With other intellects which hastily, conjecturally, or empirically approach her, she forms no alliance; but behaves herself towards them as towards the stealthy thief, who would despoil her of her honours as well as of her ornaments.

ON THE BLOOD.

Not long ago I delivered a course of *Six Lectures On Materia Medica and its Relations to the Animal Economy*.* In these lectures I demonstrated, *seriatim*, the following principles:—

1stly, That the blood is the common principle in the animal body, which is at once the origin and source and the corporeal life of its every part.

2ndly, That the whole organized body is subordinate and subservient to the blood.

* Since published, by J. Churchill, New Burlington Street.

3rdly, That the blood imparts to the organs which are formed from it, their ability to perform their respective functions, these functions referring essentially to its circulation, its preservation, and its renewal.

4thly, That the component parts of the blood are gaseous, saline, and earthy, which are, relatively to each other, arranged according to some definite law or by virtue of some especial force or circumstance, and which, while circulating through the body, exist in the form of serum and red globules.

5thly, That the blood is the object to which *materia medica* refers in every effort to subdue disease.

6thly, That the blood is a fluid not of one nature, but of many; not unchangeably the same in quality; not a simple uniform mixture of various parts and ingredients; not alike in all its unities, but amazingly diverse.

7thly, That the use of every organ of the body refers to some especial requirement of the blood, as, for example, that of the kidneys and skin to its serous parts and their right condition; that of the liver to the chyle and incipient blood, and their right condition; that of the lungs to the serum and red globules conjointly, and their right condition; and so on.

8thly, That healthy blood admits of ready separation into its unities, during its circulation from its state of aggregation in the larger trunks and branches of the arterial system; and that in this essentially consists its wonderful fluidity.

9thly, That the condition and well being of animal life depend on the nature, constitution, determination, continuity, and quantity of the blood.

Several other leading truths relating to the colour, heat, and vitality of the blood, are likewise pointed out in those Lectures, but it is not necessary to bring them forward at this time, because they will be adverted to and applied in the following pages, as the bearing and nature of our argument may require.

The last proposition, however, is the one which I must discuss at some length, because it embodies all antecedent and subsequent principles, and expresses causes and effects in all their subordinations, co-ordinations, and series, and embraces, in short, the whole compass of the animal economy, whether in its healthy or unhealthy conditions and operations.

I wish, also, at this early period of my disquisition, to explain myself in regard to the terms, "animal life," and "animal economy." In the latter I confine myself to that series of actions which is observable in every individual of the animal world, exhibiting its own economy in a distinctive manner from every other, but with reference, nevertheless, to a larger economy which comprehends all these differences, and which allows of being so diversely manifested, whilst it applies itself to all as animal life. Under the term, animal economy, therefore, a wider field of observation is comprehended than would at first sight appear: for, though animal life is manifested diversely and pertains to races of animal being of totally opposite natures, even as opposite as what is vile is to what is noble, yet the wonderful operations which are going on every instant in the economy of each, are alike in both cases,—circulation for instance, digestion, reproduction, and other multifarious processes. These are for different

ends and purposes, and yet are in subordination to one common end, to one common life, to that life which is the life of all that live. In every case, therefore, does our last proposition hold true, namely, that the condition and well-being of animal life depend on the *nature, constitution, determination, continuity, and quantity* of the blood, and consequently that a disturbance of one or more of these essential points is a departure from health. And we have only to add to the rest, the changes that may happen with respect to each point, in all the ways of combination that are possible, to discover how many general causes of disorder there may be in the body, or how many different conditions under which the blood and thence the body, or animal life, may exist.

The Fifth Proposition, that the blood is the especial object to which *materia medica* refers in every effort to subdue disease, applies itself to each of the terms of the Ninth Proposition; and this will be rendered more and more apparent as we discuss those terms in the order in which we have stated them; and first, on the

NATURE OF THE BLOOD.

The warm-blooded animals are manifestly of a different nature from the 'cold-blooded. The shades of difference between these two extremes are doubtless very numerous, though they, as yet, have not been accurately determined. The blood of different animals is, however, as remarkable for diversity of nature, in all other respects as well as in that of temperature, as is indicated by its composition, colour, fluidity, and by every other property, so that with truth it may be

said, that the blood of one animal is different from that of every other animal; and further, that no two unities of the blood of any one animal are alike in all their particulars; for the general nature is but the sum and expression of the endless diversity of states of which an individual, or a society of individuals, or an entire race, is susceptible.

Hereditary peculiarities also affect the nature of the blood; and they engage the attention of the psychologist, the physician, the politician, and the agriculturist. The nature of the blood in these respects, in short, modifies the condition and well-being of animal life; whilst this nature itself admits of endless modifications from innumerable internal and external causes. This position is strengthened by that which I established in the course of the *Six Lectures* before adverted to, namely, that the blood in its highest and primitive condition, and when pregnant, therefore, with vital and formative force, is absolutely the starting point of the new creature. This being the fact, its every influence, as a result from the force inherent within it, tends to maintain its own nature, whether this be original or acquired. This is effected by the instrumentality of the organs that are formed from it, which organs also are in conformity with the same nature, not only as to their tendencies, but as to their actions and forms in their whole complex, referring, as they do universally, to the preservation and reproduction of the blood, with all its inherent qualities.

But our especial theme at this time, is, that form of animal life called *human*. Now this form is, relatively to every other, transcendant; for as touching capabi-

lity only, human nature can scarcely be said to stand in the relation of comparison, it is rather a relation of distinction, inasmuch as in every other form of animal life capability is limited, fixed, and unchangeable, whilst in the human it is unlimited, indefinite, and free,—its nature as contradistinguished from animal nature, is incomparably more various and distinctive, and this even to the minutest particular in every individual of the species. Capability in reference to either form, exhibits itself most prominently in two leading and fundamental functions, namely, in volition and in sensation. In the one, capability is essentially instinctive, or animal; in the other, it is especially rational or human. These functions again, in the human form, that is to say, volition and sensation, are distinguishable from those of the merely animal, by the circumstance of an absence of determination and knowledge at birth; whereas in the animal, these functions are at once of the nature of animal capability, and continue limited, fixed, and unchangeable. As to organic materials, as so many organic elements, such as nerve or capillary vessel, or muscular fibre, or simple gland, pore, and membrane, the animal and the human fabrics are similarly constituted; but the difference of form would seem to depend upon a difference of arrangement of these organic constituents, and this difference of arrangement again upon diversity of nature, so that at the very starting point of every individual, whether animal or human, there is a difference of nature, and this in so marked and so expressed a manner, as to be maintained throughout the entire progression of operations from that starting point, through growth, to maturity and reproduction.

The starting point has been designated the *nisus formativus* and the "formative force." Under the latter appellation it is remarked upon, as follows, in the *Six Lectures on Materia Medica*, &c., Lecture VI.: "Now, if we pursue the process of the formation of animal being, we first observe a fluid; we have next the manifest initiaments, so to speak, of a nervous system; then the beginnings of a vascular system, which follows the composition of a colourless fluid, and precedes the composition of the red blood. Hence we plainly perceive an order of instrumental subordination distinguishing the very primordia of animal existence. This order, moreover, I consider as continued throughout all the subsequent stages of formation, up to the very completion of the animal being; the direction, end, and power of the formative force being all clearly and distinctly embodied in the organized product." (P. 175.)

And again: "How distinctive nature must be in the first rudiments of formation; or, what is the same thing, how exact, but at the same time how distinct in each individual animal, is the operation of that formative force in which nature dwells, and of that fluid in which this agency commences." (P. 178.)

Again: "But the formative force not only begins the work of formation, it also proceeds with it, even to the termination of life, and it is, moreover, identical with the power which repairs the wear and tear of the body, and which, in case of accident, renovates the system; for all things that follow from it are subordinate to it, and each of these again is subordinate to that which in the order of succession preceded it." (P. 179.)

Thus a formative force with an especial nature, is

assignable to every species of animal being, whether animal or human,—an order of actions is instituted from the beginning of the existence of each. This order is instinctive in both with reference to the production of form and capabilities, and not only so, but with reference likewise to preservation, growth, and reproduction or multiplication. This force and this order exist and operate entire in every organic product, constituting, in fact, the nature of each, so that in the human form all is human, and in the animal, all is animal.

Having arrived thus far in our reasoning, we are enabled, as from a higher altitude, to perceive reflectively the vast extent of the experimental field that has been traversed; memory is now the recorded history with its open book and printed pages. The student, the philosopher, the sage, can each consult the record for himself, and subscribe to the testamentary document, that animal nature in contradistinction to human nature, is fixed, unchangeable, unprogressive, or, as has been stated in the *Six Lectures*, (p. 129): “The power which pertains to these forms of being is limited and unprogressive; in their successive generations, ages produce no change; no faculty of comparison or capability of reflection, is assigned to them.” Whereas, human nature exhibits a play of capability, a mobility, a latitude of action, and even a progression, identical with a freedom of determination, adequate to establish the possibility of change even in its own very nature.

But I cannot, from the evidence afforded, insist on the possibility of change of nature only, I insist on the possibility having merged into the reality, and consequently that human nature is a changed and changing

nature, the formative force itself supplying the possibility as a capability, and not as a necessity, or, as we stated in the *Six Lectures*, p. 129, "In man, on the contrary, the formative force produces a work, the completeness and perfection of which consist in its unlimited capability, and in the endless variety of its unfettered determinations."

Prospectively from the same altitude, it is to be conceived in anticipation, that human nature under its present constitution, with its capabilities, possibilities, and changing tendencies to render it a mixed economy, will emerge, as from a chaotic state, with greater aptitude for fulfilling the great ends of its existence. The vast stores of valuable experience that have been accumulated, the great perfection of art and science now attained; the ways and approaches to philosophy settled and established upon the analytic and inductive methods; the discipline of the understanding being now cultivated according to rules which respect the liberty of the will, at the same time that they control it,—all assure us of this great result. The high concerns of the soul with its eternal interests, being now the more immediate care and property of every individual man, and not transferred to the keeping of another, every faculty of human nature can be engaged with freedom, either in the open day-light of a sun that never sets, even of the Creator's love and wisdom, to receive from it a new and a heavenly nature; or, they may be engaged in a dreary solitude where nought but the fires of self-love and lust can animate them in perpetuation of their old nature. A line of demarcation is now perceptible between good and evil, and this notwithstanding the

mixed and compound character of human nature. For though this nature pertains essentially to the will of man, with its chaos of tendencies and passions, yet over his intellectual powers, the providence of God has poured forth a light, which, enables them to distinguish between the influences which debase and those which exalt him.

Under these new and especial conditions of human nature, the world's progress onward and upward is secured. The principles of order are more clearly understood and observed; the rights and requirements of liberty are protected and ensured by these principles, and under the reciprocal relations of order and liberty will human nature advance, of a certainty, to the overthrow of those abuses of its intrinsic powers from whence its degradation and dishonour originally sprung.

In accordance with these observations, and in illustration of their importance, I have stated as follows in the *Six Lectures*, (p. 151): "For man, indeed, is furnished and endowed with his own proper powers and forces—with his own peculiar efforts and determinations—and with his own especial laws derived from his own order; so that he is, in fact, complete in himself, with all his faculties and experience within him, over which he rules with freedom and intelligence. Thus animated, he is self-dependent on those things that concern him, deriving the possibility of his existence in this state from the great circumambient world, and from the terraqueous globe which he inhabits."

From the above considerations, how evident is the necessity of keeping in view the nature of the individual whose maladies the physician is called upon to cure;

and how hazardous is the practice of subjecting every case to the same course of treatment, even when falling under the same designation or nosological arrangement; for most true it is that "what is food for one may be poison for another." But medical writers partake of a failing very common to humanity. Each is apt to regard his own method as the only right method. Their treatises on diseases too frequently present common ideas in a new dress, as if they originated them, and the common modes of practice exhibit a confined experience and limited power in the management of disorders, which surprise us no less than the modern prevalence of speciality as a legitimate claim on public confidence. A large experience of many diseases is more essential to the physician in the management of any one disease, than is that of one disease in the management of that one; without it the practitioner is proportionately defective in his healing power, and not unfrequently have we witnessed the failure of the specialist in his own professed sphere of action and the success of a practice based upon a more enlarged view of things in the particular case.

In discussing human nature as identical with that of the blood from whence it proceeds, and on which it momentarily depends, it is in entire accordance with the Physician's mission, that I view it irrespectively of religious, national, civil, or private considerations. It is sufficient to advert to these as to so many circumstances which modify and vary this nature to an indefinite extent; for, as I have said in the *Six Lectures*, (p. 43): The Physician who is "armed with experience, and animated by the love of truth; sensible

of a freedom to discover and reject error, and resolved upon a useful course of action, can watch the current of public thought, and the bias of its will. He can discern the rise and fall of theories which, meteor-like, attract but transient notice; he can observe the passing fashion which degrades his art to a shifting frivolity, and mark the quick succession of empirical inventions for beguiling, deluding, and deceiving mankind. Nay, more; he can deduce wise lessons from all such circumstances; and whilst he laments the easy credulity of the unwary, he indulges the hope that all pretension to the healing power will be at length accorded to the higher claims,—to claims which spring from an extended knowledge, both of the animal economy, and of the natural sciences which are subordinate and subservient to it." Age, sex, climate, season, locality, habits, and occupations, are so many circumstances which modify human nature to an immense extent, and they must govern the Physician in his management of diseases. In proof of this, I will adduce, as an instance that bears upon occupation merely, where it is hazardous to prescribe venesection to a butcher; for, associating the idea of death, as he does, with the abstraction of blood, he is almost sure to faint under the operation, or even at the mention of it in the treatment of the malady he may be suffering under. And I will take this occasion to observe, that the objection to bleeding by the lancet has now become so prevalent, that I believe the operation would be hazardous from this cause alone, though the desuetude has arisen from a very different cause; possibly, indeed, from a change induced in the nature of the blood itself, from

an alteration in the state of the atmospheres, whether aerial, electric, or magnetic, by which it is surrounded, and from which the blood is procuring the nutrient elements of its more subtle composition. In my own day, indeed, since cholera and influenza have become the prevailing distempers,—which are diseases of an adynamic nature,—bleeding has become the exception in the place of the rule, in medical practice. Possibly, however, I may live to see the necessity of returning to the use of the lancet as freely as was the custom at the commencement of my medical career,—especially if the diseases of an inflammatory nature or condition of the blood should again appear; such, in truth, as the majority of the profession at the present day have never witnessed;—when, if they withhold the lancet, their practice will be as fatal as was the continuation of its employment upon the setting in of the new forms of disease called cholera and influenza.

Occupations are of endless variety, and they have a powerful relation to the individual himself in affecting his nature and therewith his blood. For, connected with man's pursuits, are the results of occupation which are either favourable or adverse to his hopes, his ambition, and desires; let him be a statesman, or a priest, a merchant, or a lawyer, or a tradesman, or a mechanic, or a common labourer, each is his own nature, and each possesses his peculiar susceptibilities, each is governed by forces and tendencies which relate to order, or to disorder; each is attracted to ends of his own choice, either good or bad; and each is attaining a nature accordingly, praiseworthy or culpable, exalting or depressing, ennobling

or debasing; so that the Physician, with his high functions, may exercise a discrimination that, like the Diviner's rod, discovers the inclination of the man, or the metal of which he is made. To one, therefore, will the Physician administer, under sickness, differently from another; for his discriminating skill will call into exercise his well-experienced faculties, and he will industriously apply the remedies especially suited to the case, instead of idly subjecting the patient to a circumscribed and narrow routine of treatment, which results in a wholesale consignment of the sick to the ignorant dominion of the empiric.

Similar observations are equally applicable to age, sex, habits, seasons, and climates, which affect more or less closely our more outward nature. What, however, affects human nature most closely and intimately is Religion; and why? The reason is very apparent when we consider that it essays a total change of nature, a new birth, of which the Holy Scriptures inculcate the necessity; and here a stand is made by our old—our real nature—to oppose or to prevent its peaceful dominion—here the arts delusory and delusive are most active—here disturbances and confusion, discord and strife have revelled in fulness, to the consummation of every enormity that hatred and passion and the love of power could require for their gratification. The empire of hell is here diametrically opposed to the peaceful influences of heaven;—self-love is the root, the spring, and essence of the former;—the love of our neighbour is the source and essence of the latter. Every wild passion, like the preying beasts of the earth, inhabit our old nature; all corrupt thoughts are active there, like birds of night;

and all mischievous devices, like poisonous herbs and minerals, can be found there: a waste and howling wilderness it has been, and would become again, were it not for the appliances of education as supplied from the great spiritual storehouse of revealed truth.

Such are the predilections, susceptibilities, and tendencies that constitute human nature as it is in itself; were it otherwise, education would be a term generally employed as conveying an inappropriate meaning. That such a nature should fall upon and actually be seated in the blood, is an extraordinary circumstance; but it nevertheless is the fact, and demonstrated to our very senses by the prominent phenomena of pathology; from among these we have only to take those that pertain to the history of hereditary diseases, any one of which strikingly illustrates the force of nature as propagated from parent to offspring through the medium of the engendering fluid. For this force operates therein with masculine power and energy, holding tenaciously every property, both native or acquired, that can declare its origin, and working unerringly to the production of an organization suited to the accomplishment of the ends and aims inherent within it. We cannot be surprised, therefore, at the hereditary taint that pervades every fibre of the organized product; all the organs of which continue at work to produce, to maintain, and to reproduce the blood of a nature similar to themselves, and to the fluid that is so pregnant with force as to impregnate every recipient form and material that is in a condition and situation to embody it. Where then is the Physician who disregards natural tendency in his efforts to dis-

charge his duty? Where is the Physician who overlooks the facts relating to the physical history of his patients, or who is not grieved to find that in them the phthisical, or cancerous, or gouty, or tubercular, or serophulous, or asthmatic, or rheumatic taint is observable; or even the source of mental derangement? What honest Physician does not scorn the insolent pretender to the duties of his high vocation, professing to extirpate those hereditary physical vices of the human constitution? or does not pity the unhappy victims of these disorders, who aggravate their sufferings by yielding themselves up to the mere sophistries of a dishonest craft?

The history of the medical profession, in every page, evinces its untiring industry for the alleviation of the sorrows incident to humanity from these sources. Every rule, every remedy, has been suggested, that enlightened art and practical science can devise; every observation of a good result has been zealously recorded; every attempt has been frustrated that essays a specific power over a specific malady; for these hereditary disorders are with us and among us still, ripe and active as ever, and redolent of suffering, of humiliation, and of warning, with regard to the instability of human nature and its welfare, even in its own native sphere. On this lower ground—the lowest of humanity,—the mere shell of human action and capability,—the physical constitution,—we can discern the stamp of imperfection, and the derangement of its nature; but as we ascend the ladder of its faculties and powers, and enter the several stories of the temple, as it were, with their innumerable compartments, we may discover natural defects and perversions both mental and moral.

On these the moralist, the ethic philosopher, and the theologian have severally been engaged for ages past, and alas! what do we not still behold? I perambulate this vast city, I visit neighbouring cities and countries, I mark the daily press, I scan the aims of men in their toiling hours, the sources of their pleasure in their moments of relaxation, and all declare how much human nature is below its real capabilities; for capable as it is of a happier and a better state, and responsible for its deficiencies, it is reaping the bitter fruits of its own shortcomings. The spirit of selfishness is its bane, to which the opposite spirit is the only antidote.

The old man must be supplanted by the new, to eradicate the hereditary taints of his blood; his disorders are as deep seated as they can be, short of self-annihilation, and in the reason of things, are only to be cured by going to the root of the evil. Truly there is enough for an army of the family of Democritus to laugh at, whilst witnessing the arts, the devices, the tricks of humanity, to render the necessity of self-improvement a self-exceptional experience, or—what is the same thing—to make the rule “of doing as we would be done by,” universal, with but one exception. Such philosophy has evidence sufficient to discern, that the cleverest, the strongest, the farthest-seeing understanding may be the best tool for the worst will, and that, with necessity as the spur upon the heel of Divine ordainings, a marvellous government can be maintained, such as the nations of the earth are compelled to work under. Nevertheless, self-improvement, the change of the individual, is still the great necessity,—the indispensable condition for the eradication of evil from human nature. The highest

philosophy, and that which is most in earnest, is the practical, the first point whereof pervades the entire human system from its very incipient rudiment, through all the stages of infantile growth up to the matured and perfect man; a point, disregarded as it may be, is yet of the first importance, and intimately concerns the will of man, seeing that its inmost action must be to cease from the commission of evil. The will of man is identical with his nature, and to change this nature is the work of the will; for, this is the province of the will, as much as it has been its power to turn the course of its high destinies from their original pathways, into channels, and currents, and circuits of debasing perversions; nay, the very existence of evil, as an infliction upon human nature, is but a powerful demonstration of the intended good, thwarted by nothing, but the willing perversion of its capabilities. Yes; the greatest amount of disease, whether physical or moral, is but an indication of the vast amount of health, both natural and spiritual, provided for the enjoyment of human nature, to say nothing of the tendencies within and the aids without to accomplish a restoration, as so many grounds for cheering hope to rest her golden feet upon.

Nothing, indeed, exists in the economy of human nature, as exhibited in its corporeal structures, but what demonstrates not only the wisdom, but the goodness, which gives direction to the formative force as its especial nature; and this, despite the perversions, abuses, and taints, which have turned its influence into a direction the very opposite to what was originally intended. For were it a formative force only, and not a

regenerative one also, constantly in action in the living economy of the being, the capability of regeneration in its widest acceptance would be wanting; this capability pervades every other, and is to be regarded as a renewing nature; it is at the root of the reproductive power, and all its efforts, actions, and progress are therefore steeped in an ocean of delight. No wonder, then, that, redemption should have been ushered in by a jubilee of the angelic host! No wonder that angels should rejoice so greatly, on the repentance, the change of nature, of sinful man! No wonder that even outward nature should assume a smiling aspect, when its heat unites with its light, to revive and re-fructify the otherwise barren earth! All capabilities are blessed in and by this, and derive from it their constant effort at freshness and newness.

What a nature, then, is the human! What capabilities it possesses! capabilities equal to the realization of the eternal promptings of goodness, and adequate to participate in the infinite communications of wisdom as they exist in the Divine nature—the Divine Humanity of the incarnate Deity! For such a nature can too much be done by man, its possessor? To such a nature can he devote himself sufficiently, in order to avoid the force of the responsibility that weighs against him, if he loves it not as much as he loves himself? In behalf of his own share in the common lot, formed as it is of divers constituents, good and bad, should he not study his own interests by regarding those of his neighbour in the first place? To this end, should he not perform his duty in the station in which he is placed? Should he not eschew the debasing arts and promptings

of selfishness? Should not nations, like individuals, strive for laws of action, which, while they preserve society from vicious contamination, exclude the contaminating material? Should not our nation in particular, which is foremost in the regenerating, or civilizing work, be more stringent than it is against the introduction of pernicious practices and defrauding licences, which, whilst contributing to the support of the state, and of the press, are vitiating the great mass of society at the very core. I say, at the very core, because the liberty of the subject is unchecked where self interest prompts to a mere mercenary course of action.

Our nation, truly, has great and glorious qualities in its political constitution, but nevertheless it is not free from debasement and degeneracy. Painful is it to witness offences, grievous and shameful, rising up from the outlying organs of the body politic, in the shape of bribery and party feeling, contaminating the springs of legislation, and vitiating the current of justice in all its channels. Nor can I confine my view to the political sphere, when on the topic of human nature. The elements which constitute the religious sphere, or as they are designated, the spiritual and moral considerations, which bear with force upon every human action, either as an internal influence or as an external pressure, modify this nature in a most especial manner, as we have already pointed out. But all depends on their purity, or otherwise, for weal or for woe; for like the atmospheres above and around us, they may be defiled with pernicious exhalations, or darkened by dense fogs and so intercept the passage of the health-preserving rays

which they ought to be the especial medium of conveying to us. These elements in their purity, are the vehicles of principles essentially good and true, but when they are charged with gross and heavy materials, as principles, essentially worldly and selfish, they proportionately fail of their healthful influence upon humanity, and impart a character to it which is cold, and hard-hearted, dark and short-sighted, gloomy and repulsive. Human nature thus characterized, becomes acclimated, so to speak, to the indefinitely varying views which make up the multifarious religious creeds of the world, and it produces fruits of divers natures and qualities, good and bad, refreshing or seductive, according as it is engrafted on the Tree of Life, or on the Tree of the Knowledge of good and evil. It is indeed manifest that all religious creeds cannot be true, though their respective believers may be good in motive and intention. The motive hallows the creed according to its sincerity and honesty, and so far benefits the nature of the man who entertains it; but if the motive is settled on its points of faith, as on views that are right when they are wrong, the man is unsafe for himself and for others, and his nature acquires hardness instead of pliancy, pride instead of docility, stupidity instead of intelligence, sensuality instead of wisdom; bigotry outstrips toleration; anathemas displace blessings. By its fruits shall human nature be for ever known, for a paradise or a hell is perpetually springing out of it. To all the past I refer the reader in proof of what I have advanced; to his own history of his own life I refer him also; let his religious views be what they may, to his own experience, as to the book of his own

understanding and composition, I refer him, for he must be its best interpreter. If he deceives, the deception is practised on himself; if he feels offended, it must be with himself, for the reference is given where facts are the unbiased and unsuborned witnesses, who criminate us all.

But self-improvement, or change of nature by substitution, irrespective of free agency, is the greatest of delusions. "Even the faith which healed bodily diseases, was co-operative, seeing that the consequent restoration was qualified by an injunction 'to sin no more,' in order to avert a worse condition*, and that unbelief counteracted the mighty work."† The will, as a faculty, must be, as the power that bestows it, free; the understanding also, as a capability, must be in operation, free likewise; for then only is the man, responsible, and his nature determinable accordingly as to its soundness or unsoundness.

The bestowing power is made known to us only by revelation; but such knowledge is according to the interpretation, that is to say, true or false, or mixed and defective; if the interpretation be true, all creation must confirm and illustrate it, for then the creating power and the created faculty, and the perpetual capability, will be an enduring harmony; and creation, in its universal extent, will be seen to be a vast assemblage of means that are adequate and subservient to the end contemplated by the Almighty Architect "In my Father's house are many mansions, I go to prepare a place for you, that where I am ye may be also."‡ Human nature, or the

* John v. 14.

† Mark vi. 5, 6.

‡ John xiv. 2.

will of man as a created faculty, is the material with which this paternal house is built; the mansions are its subdivisions, as determined by the characteristic qualities of each individual; the "place prepared," expresses the omniscience of the Divine nature, by which all requirements are foreseen and provided for, and therefore prepared with the most exact adaptation to every the minutest contingency that can occur throughout eternity, and this in order to secure for others a state of perfection and happiness like its own.

But if human nature will not be built upon the plan of the Great Architect, according to His revealed will, which requires that the love of one another should be the mainspring of its action; then the diametrically opposite plan is the only alternative, and all the opposite consequences are the only inevitable result. Hatred, as the spring of disturbing action, now institutes a ceaseless round of corroding strife; no check but the divine law of retaliation avails to moderate its virulence; and what a law of permissive action must it be, if we may judge merely from what may be seen in common life, where one party given to ridicule another, is himself most tormented by ridicule; and where again, a mischief committed by one person upon another, and recoiling upon the doer, has proved a fatal visitation to him. A most striking case in point, besides several others, occurs to my mind; it was that of a lawyer who took pleasure in the performance of the duties connected with imprisonment for debt. He himself at length came within the operation of these duties and was in momentary fear of an arrest; the effect was overpowering to him, he fell ill and died under the

apprehension of incarceration. The delight he felt was the sinful part of his nature.

To come to a conclusion on the nature of the blood. I do not think too great a stress can be laid on the the importance to philosophy in general, of the principle which teaches that man or human nature is in no particular, a scintilla of life, but merely a complex of organs collectively receptive of life.

This principle dissipates all difficulty and perplexity from the subject on which we are engaged, and therefore as "A Physician for All," I proceed, under its guidance, to demonstrate, in the order I proposed to myself, how the fortunes and condition of animal life depend also on the

CONSTITUTION OF THE BLOOD.

On this subject, I have stated, in my six lectures *On Materia Medica, &c.*, p. 12, that the component parts of the blood are in general terms gaseous, saline, and earthy. The gaseous parts are known under the appellation of oxygen, hydrogen, azote, and carbonic acid. The saline and earthy parts are such compound substances as are denominated according to their distinct component elements, as chloride of sodium, chloride of potassium, sulphate of potass, subcarbonate of soda, phosphate of lime, phosphate of iron, oxide of iron, and others. These ingredients together with a considerable quantity of water, are found in various proportions in the volume of fluid which circulates through the organized body under the appellation of blood.

But these parts or elements do not exist in a separate and distinct manner, as a mere heterogeneous mixture

and solution. On the contrary, they are amalgamated, blended, or arranged, according to some definite law, or by virtue of some peculiar force or circumstance. "And this is obviously the case in regard to the gaseous elements, the bases of which combine together in various modes and proportions, so as to form what chemists have designated albumen, fibrina, red globules, gelatine; all which, while circulating through the body, exist in the form of serum and red globules.

"This arrangement of these ultimate constituent materials into new combinations, so as to exhibit what are very properly called animal matters, or, in one general term, the blood, merits the closest attention. This must be evident to every one when it is considered, that these materials are derived from a source, which not only exists in the world of nature, but for the most part constitutes it, primarily indeed, from the mineral kingdom, through the medium of the vegetable kingdom and from the atmosphere.

"Nor is this the only point worthy of our consideration; for it is equally important to attend to the immense variety of products that arise from the blood. These are presented to us in a striking manner by the entire animal body, as well as by its individual organs; for these organs do not differ from each other in form and function only, but also in chemical composition. Thus, in this respect, brain, muscle, glands, membrane, tendon, bone, skin, hair, nails are extremely dissimilar. The secretions again, which have their source in the blood, and each of which declares the use of its own secretory organ, astonish us both by their number and variety. We have, for instance, the saliva, the

gastric and pancreatic fluids, milk, bile, and many others; all indefinitely referring to quality, quantity, colour, smell, and taste.

“Again, the diverse substances received into the body as aliment, present to us another consideration no less interesting than the two which we have already mentioned. For some of these substances are oily, some spirituous, some saline, some vegetable, and some animal; they are nevertheless speedily reduced, digested, and compounded into the apparently homogenous fluid, blood!—a fluid which, regarded in itself, affords no certain evidence of the kind of aliment from which it was formed.”

The constitution of the blood may be considered analogous to an impregnated egg; for although the ingredients are to all appearance constituted alike in most birds, insomuch that chemists with all their skill, cannot determine by chemical characteristics the difference between the egg of an eagle and that of a dove; yet the natures of each respectively operate as the law, or, the force, which render them essentially so diverse. The materials in both are chemically the same, but a different constitution and determination are assigned them, according to the respective natures operative in each. The same reasoning applies exactly to the blood; in most animals, the same materials compose it, but the nature of each animal determines a specific and absolute difference in constitution, and this because the formative force and the nature have a reciprocal relation to each other—for as is the one such also is the other. But I refer my indulgent reader to my observations upon the nature of the blood throughout, and

especially to the conclusion, that in the animal nature, all is animal, and in the human, all is human.

To illustrate my meaning by one incident. I frequently met a brother Physician of great celebrity and of acute intellect, in consultation upon an obstinate case which required very active treatment. The patient was bled again and again, the state of the blood fully justifying the measure, presenting, as it did, the clearest signs of an inflammatory condition. At one of our interviews, he expressed his surprise that this condition continued; I remarked, "that the nourishment taken by the patient, simple as it was, kept up the condition, on the principle that like makes like." "What!" said he, "do you mean to say, that when I eat duck, I become duck?" "No!" I replied, "when you eat duck, duck becomes you." "I beg your pardon; I ought to have known better," was the learned doctor's manly admission.

Hence it will be apparent how the fortunes and conditions of animal life, depend on the nature and constitution of the blood, and upon all their infinitely diversified modifications. These modifications again are so many modifying causes which have relation to mental and hereditary influences, to habits and desires, &c., and which are internal relatively to those that admit of being placed under the heads of diet, organic functions, appetites, and passions; the latter most especially affecting the constitution of the blood in a variety of ways.

I put diet in the first place, because it is manifest at first sight almost; this of itself, is a vast field for the Physician's eye to rest upon, and his hand to work with,

if regarded as a medical appliance only. It is according to what the blood is nourished by, that its constitution is determined from without; the materials being atmospheric, liquid, and solid. The organic functions also modify the blood's constitution according to their healthy or unhealthy performance, and also according to the quality and quantity of the materials which relate to them respectively; and if these materials are deficient in quality and quantity, the organs themselves are proportionately embarrassed, and fail in their wonted degree and extent of service. In like manner, if the materials are vitiated or unwholesome, or of difficult assimilation, the constitution of the blood varies accordingly, and derives from this source a great number of its unhealthy and disordered conditions. To recapitulate them as causes or consequences would be to re-write all that has been written, *usque ad nauseam*, upon the subject of diet, air, and regimen. Again, the materials serving for food may be most wholesome, and yet the constitution of the blood may be unhealthy and depraved; for the organic functions may themselves be acting in a disorderly manner, and this either from internal or external causes, as depending on the conditions of the blood itself, or on the state of the nerves, or on the defective service of one or more of the organs in particular. So again, the blood may be vitiated by unwholesome exhalations, by infectious and contagious miasmata, irrespective of food, or by hereditary taints and tendencies, or it may be subjected to exhausting drains upon its most essential constituents, through the dominion of lust and passion, in the gratification of which its nobler parts are immolated, as it were

“passing through the fire to Moloch.” Or its constitution may be overcharged with nutritious elements, and subject to inflammatory and fiery outbursts from the slightest causes, acting like so many stimulants, and invading even the mental sphere, to the production of insane or foolish conceits, or of an intoxication of brain, either temporary or permanent.

The habitual use of intoxicating drinks gives us a striking example of the mode in which the constitution of the blood is affected by the gratification of a passion. In this condition those organs in chief are inflamed, which are most called upon to rectify the mischief induced by the spirituous liquid. Thus the lining membrane of the stomach, immediately on the introduction of the hot stimulus, pours forth a fluid of a character suited to reduce its acrid or burning quality: to supply this emollient fluid there is a determination of blood to that membrane, greater in amount than is natural or healthful, and an inflammatory condition of both the membrane, and the blood, is set up as a consequence of the frequent repetition of the stimulus; inflamed blood and organ; which are at first as cause and effect, become at length synonymous.

The next effect is a quickened circulation to supply the increased demand for the sheathing and other use-performing fluids, which collectively take the name of mucus and gastric juices. The heart and arteries for several reasons, throb and beat tumultuously and with more frequent rhythm; they labour in short to extinguish the ignited elements, and to check their spread to the domain of reason, where, if they once gain admission, the whole framework of the system becomes a

rambling, trembling, drunken deformity. The brain, ever watchful to bring the chaotic materials of merely mundane nature, into orderly arrangement and distribution, calls on all its subordinate organs to lend their aid to keep both itself and them from destruction; the brain, I say, in its strength, despite the loss of reason's outworks, holds the citadel of its more universal power, and despite self-prostrated sense, and self-deprived motion, and the suicide of consciousness, re-establishes order and tranquillity, when the alcoholic torches are extinguished.

I trust I shall be forgiven for offering a specimen, so to speak, of the philosophy observable in the animal economy as a working, or acting principle, by organic instrumentality. It is no abstract reasoning or imaginary process, but a positive reality, so that the irrationality of man, as exhibited in the consequences of his excess, is evidence of a deeper reason and a higher philosophy at work within the reasoning faculty itself, to maintain it such, and even to restore it, after it has been deranged by the folly of its possessor. This observation applies in all other cases, and is directly opposed to materiality as a first principle, by establishing a more material action of that which metaphysicians term an immaterial principle, but which is most material to our argument, as well as best confirmed by all our experience, however immaterial it may be to the materialist. This play of words, indeed, may be seen to be philosophy in earnest and therefore admissible here.

A clear illustration of the relationship subsisting between the constitution and nature of the blood, comes next to be given; shewing as it does how the former can modify the latter as an external cause.

There are, at this time, three young lions in the Zoological Gardens, Regent's Park ; two of them are nursed by their dam, the other is brought up by hand, being fed with cow's milk—the former are wild and savage according to their real nature, the latter is playful and tame according to the nature of a dog of a finer breed. Here diet is evidently the great circumstance modifying even nature ; not but that with age, the real nature will predominate and come out the greater circumstance, asserting its power, and influence over blood of milder material constitution, and in this case rendering it necessary to supply the matured animal with food more congenial to its nature, with flesh and bone, blood and sinew, suitable to the necessities of its own organism,—necessities that must spring out of the laws of self-preservation and reproduction.

The above case conveys a lesson of great importance, bearing as it does upon the beneficial influences or otherwise of divers dietary materials. Thus there are states and conditions of the body which require very different treatment in regard to the kind and the quantity of the food at different times. The growing child and boy, need a just apportionment of quality and quantity of food, simple and nutritious for the most part ; but on this head the thing is so obvious that it would be but waste of paper to enter into the detail—suffice it, that I should adduce a case where in protracted sickness, the duration of the illness seemed to be mainly owing to the want of supply of a particular aliment.

The case was one of fever in a child about five years old, the complaint continued day after day a simple

fever, with wasting of body, great restlessness, dry skin and tongue, quick pulse, petulance of temper, disrelish of all food. The state of the patient was altogether alarming without indicating any specific source of mischief. The parents were from Ireland; I questioned them and the nurse particularly as to the habits and temper of the child, and at length as to the kind of diet upon which it had been chiefly reared. I found that it had always preferred boiled potatoes soaked in milk, and at the mention of this circumstance by the mother, I observed the child open wide its eyes, and turn its pale and withered countenance with interest towards us. I thereupon requested the nurse to procure a quantity of the article as quickly as possible. Fortunately the potatoes were ready, and I witnessed the gratifying scene of the consumption of the meal, forming the first step towards the restoration of the little patient to health.

It, moreover, very frequently happens that upon the cessation of bad fevers, the exhausted patient craves for some particular or even strange article of diet, which it would be extremely injudicious, on the part of the Physician, to disallow. But instances of this sort are generally known; I merely refer to them to illustrate the influence of nature upon the appetite and digestive power, when it craves for what is most suitable to the constitution of the blood under certain special circumstances.

Commenting upon diet in this general manner, I must make an observation upon the power of adaptation in the animal economy to the extreme circumstances in which it may be placed in regard to food. The

extremes of food include a range of substances between the dry hard fish in which the Esquimaux delights, and the watery melons of the Italian or Spaniard; a sudden mutual exchange of these articles would be the death of both parties in all probability, not merely by operating upon the mucous membrane of the stomach in each case, but by affecting the blood, and thence inducing cramps and spasms, eruptions and febrile irritations, with other baneful results.

I cannot omit this opportunity of animadverting upon the absurd lengths to which some Physicians have gone in their dietary regulations, as founded upon their views of the mucous membrane of the stomach, regarding this membrane as endowed with a delicacy of sense even surpassing that of the coats of the eye. They seem, indeed, to derive their ideas of its functions from what is manifested in its morbid rather than in its healthy conditions. For in a healthy condition the stomach will endure strange mixtures of food, both dry and liquid, hot and cold, stimulant and sedative, acrid and harmless, cooked and raw, at the same meal, and even digest the compound better than it would any one of the articles taken singly. The stomach is a social as well as a sympathizing organ. It likes several associates as its guests at the same feast, and it works more successfully when expending its assimilating powers upon a variety of ingredients. It performs a more exalted service when ministering to the many requirements of the blood and body, from the richer stores with which itself is recruited. It rebels alike against surfeit and scarcity; and it makes a bad master although it is well versed in the rules of prudence. Like its master it can be human or animal,

by partaking of the nature of his blood, for the service of which it works to the best of its power, and according to the gastric spirit or menstruum which it receives from the blood.

Whilst on the constitution of the blood, I would advert to the effects of starvation produced upon the animal economy as it is exhibited in human nature contrasted with merely animal nature. I do not refer to the mere pangs of hunger and thirst, but to a stage beyond this, when the physical powers are too enfeebled to seek for food. In such a state the animal is passive, as if resigned to its fate, retiring to die; but it is not so with man—he becomes mad, ferociously so in some instances, and will devour his weaker fellow in misery, and even his own offspring. No ties of nature here avail, even the bonds of religion, however exalted and pure, lose their power.

As a source of disease, the constitution of the blood is subject to manifold causes of disturbance, and is susceptible of infinite derangements which fall inevitably upon the general system. This is seen in all instances in which nature is found departing from her ordinary laws, and to some of which I have already adverted. Nor can I omit the poisonous substances of every class whether mineral, vegetable, animal, or gaseous in their origin, which respectively present their peculiar phenomena in the animal economy, and confirm in the most positive manner, many of my observations on the nature of the blood, and its correspondent influences even upon the thinking faculty. When these poisons act upon the blood, and, through this fluid, upon the other organs of the body, whether cerebral,

sensory or motory, according to the nature of each, some very striking results present themselves, which are either insufficiently attended to, or are entirely overlooked. These results, nevertheless, are of the greatest importance, as they afford not only clear explanations of the *modus operandi* of medicines, but also of the determining powers of the system, and of the remarkable capability, on the part of the animal economy, to accommodate itself to new and extraordinary circumstances, insomuch that, what is preternatural becomes natural, and what is natural becomes preternatural. I allude to the facts, resulting from experiments connected with the introduction of poisonous solutions into the blood whilst circulating through the veins. Thus a solution of arsenic injected into the jugular vein of a dog, will accompany the blood through the heart, circulating with it through the lungs also by the pulmonary artery, and returning to the heart by the pulmonary veins; it will then pervade the whole arterial system alike, without affecting any organ injuriously but the lining membrane of the stomach, and this in the same way as if the poison had been introduced directly there by an act of deglutition only.

In like manner, a solution of corrosive sublimate injected into the jugular vein, will manifest its especial effect upon the lining membrane of the small intestines. In these cases, it is evident that the arsenic and the corrosive sublimate are mixed with the blood, but to the injury only of the stomach and intestines in the first instance; the delicate tissue of the lungs remains intact by the poison, destructive as it is to animal tissue in general; nay, the arsenic is even found after death

in the liver and museles of the animal, without appearing to inflict any destructive mischief upon them as it does upon the mucous membrane of the stomach. The constitution of the blood is altered in this case, so as to inflame the stomach in chief; it is unfit for the organ so far as the organ is concerned, and specifically so according to the specific nature of the poison. It is precisely the same in regard to all the other poisons; they alter the constitution of the blood according to their own natures respectively, and instead of affecting all the organs of the body to which the blood is distributed in common, one or more organs only out of the many, are affected by it to the exemption of the rest. To produce this extraordinary circumstance many causes doubtless conspire of a more or less hidden nature, though some of them may be referred to structure, situation, vascular distribution in the organ itself, to say nothing of the nervous influences upon it. So in regard to the cerebral organs and their functions, whether sensory, motory, reminiscent, imaginative, analytic, perceptive, reflective, cogitative, or determinative. These may severally or conjointly be influenced by the changes in the constitution of the blood, as induced by the poisonous materials that may have gained admission there; whence there may exist most anomalous conditions of the senses, or of the motive and other powers, with hallucinations, delusions, false perceptions, and strange volitions or determinations, in the same way as if these were effects of causes more or less permanent, such as pertain to the insane by hereditary or other deranging influences.

I need not make any special reference to the known

effects of many of the vegetable poisons, as opium, hemlock, tobacco, henbane, strychnine, aconite, belladonna, and others, to illustrate my meaning. Their effects, if not fatal, are transient, with greater or less intensity and duration. But some poisons have the remarkable property of accumulation to a certain point before they exhibit their marked effects upon the system. A well-known instance of this is presented by digitalis (foxglove), and by strychnine, as well as by arsenic. The blood acts as an attractive force, holding the poison in combination, just as the atmosphere or water will hold vapours and muddy impurities for a time, and then precipitate them either for self-purification, or for ulterior and remoter uses. In medical language, this power of the animal economy, or, this faculty of the blood, if I may so speak, is designated the tolerance of the system.

But there is another kind of tolerance, which, though it is known to exist, does not occupy the important place in the observer's mind that it ought to do; and this is the worst and most terrific of all poisons when let loose from its deeply concealed abode. I speak of the rabid poison,—the saliva of the rabid dog. Only a few days ago, I was passing by one of our hospitals when I saw a philanthropic friend standing at the door, his countenance overcast with a cloud of thought, he told me that the body of a patient who had suffered from hydrophobia was undergoing a *post mortem* examination. "Well," I said, "they have found nothing to account for the horrible symptoms, nor for the death?" "No," he replied. "No," I remarked, "it is a diseased condition of the fluids, or, of the blood!" "Yes; I sup-

pose it must be so," was my friend's rejoinder. "Did they administer chloroform?" "Yes, with good effect in calming suffering." "That is a gracious boon," I observed, "but it does not cure the horrid malady!" Let us however hope that the remedy will not always elude our search, as I have stated in my fifth lecture on *Materia Medica*, "if there is a nervous fluid, we may naturally conclude that it must be subject to various derangements, which would in a corresponding degree affect the brain. And surely these derangements ought to be regarded as capable of cure upon still more philosophic and enlarged principles of treatment than have yet been adopted; upon such, for instance, as would make chemistry minister to the production of gaseous remedies, more likely than either solid or liquid matter to reach the very root of the maladies in question," (p. 172.)

On leaving my philanthropic friend, I reflected on the train of phenomena presented by that terrific distemper, in order to learn from nature's darkest page a lesson by contrast concerning her opposite and brightest. To learn by opposites is not a bad source of instruction. Even vice has a permitted existence, and vicious man is then the dark shade in the landscape which enables us to appreciate by contrast the beauty of virtue.

But this malignant malady derived from an inferior animal, manifests the power of the elemental laws by which we are surrounded; for when it is established, an overwhelming amount of misery comes to the now isolated victim. The slightest movement of the elements, brings torture to the disordered frame; not only does the rippling water bring painful and convulsive twitch-

ings upon the whole countenance, converting the anxious look into one of horror, but the dreaded attack mounts up to reason's seat, and spreading far and wide over the whole hemisphere of thought, deprives the will of its controlling power. All the dependent muscles, which in their complex overspread the bodily framework, are racked and torn with agonizing cramps; and those that are subservient to respiration, complete their action only by convulsive snatches, as if afraid to exert their wonted spontaneity. And all this fearful disturbance is effected by an undulation, affecting the hydrophobic patient, and producing a tumult of convulsive strife, rousing the vital forces, as living billows, from their unseen depths. Sensation, moreover, is at its utmost stretch, for its chords like those of motion, are distended to excess, and feel the passing breeze a pang instead of comfort. Oh man! how full of good are the elements by which thy existence is surrounded, judging from their effects upon thy morbid self! Consider only the exquisite structure of an eye, and the flood of glory that can in a moment pour through its puny portal, as if the material world and heaven itself could condense to the needle's point. Consider that the object of thy greatest love in which thy very existence centres, can, as it were, with the lightning's speed, by an avenue so small, affect every fibre of thy frame. Consider the light, conveying in a moment images innumerable to its organ with mild or intenser ray, impinging also upon the Sneiderian membrane to the production of respiratory convulsion, and irresistible sneezing. No wonder then, that under morbid conditions, the elements that

were made for the delight of healthy humanity should become the sources of its direst misery! And if this be so, with regard to mere mundane existence, surely the mental fabric also needs careful observation for the restoration and maintenance of its health, and requires perpetual caution to guard against all false teachings and all false promises in religion, which tend only to confirm innumerable sophistries, poisonous as the scorpion's sting, and deadening the moral sense to all but selfish and worldly perceptions.

But, to return to organs, nerves, and brain, all of morbid constitution by reason of the rabid poison introduced into the blood; we find them conspiring to defer the final doom,—and this with marvellous unity of purpose, as if to gain time for maturer skill and advancing science to come to the rescue. In reference to this needful result as well as to many others which concern the welfare of man, it is most desirable now that we have a gaseous agent of anæsthetic property, that a course of experiments should be entered upon, for the purpose of making fluids of this kind the vehicles of remedies, with their specific powers, as we make spirits, oils, and waters the vehicles and solvents of our more common medicines. In this way we might reach the disorders of our higher nature, at their deeper seats and origins, more directly and expeditiously than by merely trusting to the powers of the constitution to work with protracted and uncertain issues, as they are allowed to do under homœopathic treatment. A course of experiments might also be instituted immediately after the rabid bite has been inflicted, and this either by the inoculation of the wound with some

other virus of known power, which would act both locally and constitutionally; or by charging the system with such remedies as mercury, arsenic, nitrate of silver, strychnine, &c.; nay, a continuous galvanic current might be applied to the bitten parts, to destroy the virus at once by electro-chemical decomposition. Hitherto but little has been done beyond cauterizing the recent wound, until attack and peril appear—the tragedy of a few hours' duration, in which the moments are as it were so many shifting scenes of torture and death. It is the valuable interval between the infliction of the wound and the commencement of its tragical effects, that I wish to see occupied by efforts that would not merely arrest the mournful drama, but possibly prevent it altogether.

Much of the reasoning I have adduced touching the phenomena of hydrophobia, may be transferred to the subject of miasmata, and their influence upon the animal economy, some of which gain admission into the system and there remain seemingly inactive for days, weeks, and even months. A familiar instance of this is afforded by the miasma that is productive of the phenomena of ague. The constitution of the blood is so far affected, that the "semina mali" are a part and parcel of the fluid which lie beyond the chemists art to detect in albumen, in fibrina, or in other proximate principles, as they are termed; thus illustrating a position which I have endeavoured to establish in the *Six Lectures*, &c., (p. 85.)

"Enough has been said to convince us that the facts which chemistry reveals are by no means sufficient to perfect our views on this important subject. To this

and it is indispensable that we should be acquainted, at the same time, with the structure and functions of all the organs and viscera of the body, with the principles of most of the physical sciences, as well as with those pathological facts which constitute our knowledge of disease. Nor is this all, for we ought likewise to keep in mind, the changes of state which are induced on the body by numberless influences, both external and internal; for instance, by climate, the seasons, and the states of the weather; by food and medicine; or, again by the passions of the mind, according as these may be in an orderly or disorderly condition. In short, it is not too much to say that the whole circuit of science in its very widest range, its height and its depth, must be explored, in order to arrive at a more complete and satisfactory knowledge of this wonderful fluid—the blood.

“Much, indeed, of the uncertainty which prevails respecting the true nature of the blood, is to be ascribed to the very limited view that has been too often taken of its properties and modifications. This arises from the fact that the physiologist has devoted his attention to the phenomena which the blood presents when removed from the body, rather than to those which it exhibits when circulating as a warm, living, active fluid through the corporeal system,” (p. 86).

“The notion to which I alluded, that albumen and fibrina are the constituent parts of the living circulating blood, suggests no inference that the blood can, as a volume of fluid, exist in a mixed condition.

“For instance, that a portion may be spurious, and useless for answering the purposes of the animal economy, that it may be depraved and vitiated, and charged

with manifold impurities, or that it may be ill prepared, through defective digestion, or be affected in various ways through mental influences either of a depressing or of an irritating nature."

Again, "For the blood is a fluid not of one nature, but of many; not unchangeably the same in quality; not a simple, uniform mixture of various parts and ingredients; not alike in all its unities, but amazingly diverse," *ibid.* (p. 99.)

The subject of miasmata, including noisome exhalations, whether from foul drains or stagnant pools or putrescent substances, which can gain admittance into the blood, either by the lungs or the skin, and commix therewith without immediate mischief resulting, forcibly reminds me of circumstances that occurred at a boy's school, at Clapham, some years ago, when an old drain was accidentally discovered and its long-concealed contents not only taken away, but spread over a garden by the ready assistance of the boys themselves, who were treated with an afternoon's holiday for the purpose. The school consisted of about thirty scholars, including three sons of the master. The drain was emptied on the Tuesday. Very early on the following Friday morning I was earnestly entreated by the master to visit one of his sons, who had been taken alarmingly ill in the night with faintings, violent spasms, sickness, and diarrhœa, occurring with such frequency as to make him apprehensive that the boy would be dead before I could see him. His apprehension was realized, to the dismay of the whole establishment, for the little fellow had gone to bed as usual in seeming good health. Nothing more than sympathy could be

proffered to the distressed parents. The setting in of an early collapse followed by no reaction, indicated the severity of the seizure, and was the only explanation to be given for the fatal termination. On the Sunday morning I was called up again by the master, to hasten back with him, for another of his sons had been attacked in the same way as his brother. I found him in a state of collapse, from which no remedy availed to arouse him, and he died about nine o'clock. But consternation now added itself to dismay. Between six o'clock and nine o'clock nineteen boys out of the whole number were prostrate under the fearful distemper; each bed of the dormitories was occupied by an agonized patient; the fate of all seemed to be that of the two victims already sacrificed. All aids, requisites, and appliances were administered. The sabbath was a scene of indescribable anguish. Parents, friends, servants, and medical neighbours formed a group, whose acts were as a strife for mastery over a common but concealed enemy, with weapons of fomentations, brandy, laudanum, hot salt, hot bran, frictions, and all the usual measures that are resorted to, for the relief of cramps, spasms, colic, sickness, head ache, vomitings, excessive and sudden diarrhœa, with faintings and delirious moanings alternating with each other. The discharges were very offensive and required immediate removal.

Several Physicians and Surgeons kindly offered suggestions; two of eminence were sent for who arrived at three o'clock, p.m., and visited the beds, marking thirteen of the little patients as in extreme danger. The food of the establishment was put aside for examination at a convenient opportunity, with a view of ascertain-

ing whether the cause of this dreadful visitation could be found in it; since nothing else could be fixed upon as a cause at that time, and nothing having come out about the drain. Throughout the morning the medicines administered were immediately returned by vomiting; but at length a combination of one grain of calomel with one-fourth of a grain of opium, accompanied in some of the cases by an injection of starch and laudanum, proved successful. The calomel and opium checked the sickness, and then hot brandy and water given by spoonfuls, produced the wished-for reaction, so that, by the evening of that memorable day of anxiety and fatigue, a calm succeeded, and "the plague was staid." By an early hour on Monday every boy had been removed from the school. Many of them I attended at their own homes till their recovery, and from one, by tracing back the occurrences of the preceding week, I obtained the account of the drain as above described. The two fatal cases were the youngest children in the establishment; the poison was too virulent for them to withstand. One of the ushers, a young man, was seized with sickness, cramp, and diarrhœa about mid-day on Sunday, but despite his alarm he quickly recovered. The post mortem examination of the two boys elicited no organic injury whatever. The disease was no where but in the blood. The consequent disorder of stomach, bowels, brain, and nerves, cannot be determined to be the disease; but each organ was affected by the morbid change induced upon the blood, and upon the secretions and the excretions that came from it. A poison contaminated it, and the efforts for its expulsion were accompanied

or followed by the train of symptoms which make up the condition of the patient, fatal or otherwise according to their intensity.

The foregoing case is one of interest and instruction, for happening as it did about two years before the invasion of Asiatic cholera, I was prepared in some degree for this baffling scourge of humanity. Of this distemper I had my full share of experience, in my private practice; I proceeded with my duty with every desire to lend a helping hand in explanation of the new phenomena that had arisen on our horizon; but so many talkers and writers were talking and writing all at once, that I would not add to the diversity of opinion and practice that prevailed. Deaths and cures followed my practice. Relapses and recoveries where least expected, I could mention, and fill a volume with incidents alike stirring and painful. A susceptibility of a novel kind—the constitution of this century in this part of the world—as Sydenham would have said, had declared itself; common English cholera, as a form of intestinal disorder, became the exception instead of the rule, and every slight attack of diarrhœa imparted a fear of cholera in Asiatic intensity and character.

The human frame and its fluids had, in the morbid symptoms that presented themselves, more to do than was even guessed at. Its predispositions to seizure of this nature were discussed largely enough, and were attributed to locality, to diet, to mental dread, and the like; but its new susceptibility was a more general circumstance; were it not so, the predisposing and the exciting causes alone would not have suf-

ficed to induce a uniform series of new phenomena, like those which make up the true Asiatic cholera, but merely various types of the disease in different subjects, as the diarrhœa biliosa, the diarrhœa mucosa, the diarrhœa cœliaca of Cullen's nosology, onward to the common English cholera. This prevailing susceptibility was a tacitly admitted fact, for not one in a thousand of the population believed himself exempt from liability to a greater or less degree ; for myself, I was never apprehensive of a seizure, though I have felt an extraordinary burning sensation in my hands and arms on coming into contact with a decided cholera patient, and for a considerable time afterwards. I do not say that I conceived myself to be free from the susceptibility any more than other people, I only mean to observe that the apprehension was not, in my case, a predisposing circumstance to establish it. I could contemplate the malady with an undisturbed judgment. These exciting causes, in fact, were in existence for ages before the invasion of Europe by Asiatic cholera. If they merely assumed a new character irrespective of any new susceptibility in the human constitution, the occurrence of Asiatic cholera might be accounted for, in accordance with the opinion of many pathologists, as a result of a new but unwholesome condition of things shifting about on the earth's surface in the manner we have witnessed. But if a new susceptibility originated, or a new predisposition arose, in the human constitution itself, and existed there in different degrees, then the common exciting causes would favour the appearance of Asiatic cholera, in the same way as heat and moisture favour the growth of seeds previously deposited

in the soil; the susceptibility in this case being as the seed. To this view of the case, the religious world was prone; the susceptibility being the result, in the opinion of many, of interior derangements and perversions—of sin and iniquity abounding. This view, however, is too arbitrary and limited for general application, since infants and children, the pious and the profligate were seized alike. No; a much more extended view of the whole case and of its multifarious phenomena is wanting; and such a view would embrace the operation of internal and external causes simultaneously, establishing a co-operation, so to speak, which results in a specific change of the human constitution, or of its susceptibilities and predispositions.

And this more comprehensive view of the matter in question, will enable us to understand why the disorder should have a contagious character attributed to it by some, and an epidemic by others. A difference of nature between English and Asiatic cholera is unquestionable; mere difference in intensity or degree will not reconcile the phenomena to one and the same disorder. The nature pertains primarily either to the subject or to the exciting cause. The nature of hooping cough, for instance, defies all reasoning to determine its origin; it falls on susceptibility when it spreads from one subject to another that is predisposed or susceptible by reason of previous non-affection, but the predisposition then ceases, or the susceptibility disappears. It is not so with the nature of cholera, this is a renewing liability, or a renewing susceptibility, and the common exciting causes can rouse it into activity as long as the multifarious internal and external circumstances

that conspired to initiate are in operation to maintain it.

In this disease, as in many others, physicians have laboured to establish a specific course of treatment; the saline, the stimulating, the sedative, the alterative, the purgative, and the emetic evacuants, have each had their advocates as well as their share of failure; but the man who is the best "Physician for All," and for all cases, is he who is free from all prejudices; a doctor so unfettered is fittest for every case, for in his freedom of judgment he will seek the best evidence before determining for or against any system of treatment; and, in his enlarged view of the whole matter, he will be cautious lest he propound a specific plan for general adoption, which will not support his own statements respecting its success in his own hands. Men of one idea should be eschewed, not fostered, for in this malady, as in many others, more chances of benefit are supplied from quarters that are the least committed to conceits. I have seen physicians completely at sea when required, in consultation, to prescribe out of the bounds of their favourite remedies, thus resembling the "land lubber," who hugs the shore and shrugs his shoulders at the sight of a quadrant and compass. The gold-headed cane would not verily be misapplied when this shrug is the despicable habit of a man, or, even, when his disparaging tongue endeavours to make its way by talking his wiser neighbours down.

I have witnessed contact of the healthy with the sick, sufficient to have started a dire contagion, when no such disaster occurred. In several instances one person seemed to infect another; thus a lady was at-

tacked during the period of her recovery from childbirth—a very predisposing period,—without any traceable contact with an affected person; the disease was rife in the neighbourhood, and she quickly fell a victim. I saw the husband throw himself in a state of distraction upon the bed, to kiss the quivering lips of his scarcely deceased wife. I thought that if contagion could work, it would do so here—all was favourable; contact, depression of mind, previous alarm, and impaired bodily power. In twenty-four hours the husband was suffering in the way his wife had done. I felt that a desperate enemy must be promptly met by a potent remedy. I gave the sufferer five grains of calomel every half hour, with plentiful draughts of carbonate of soda dissolved in hot water; he had also hot fomentations perseveringly applied to the abdomen. Soon after the exhibition of the third dose of calomel, the sickness abated, warmth returned to the skin, the pulse improved, and every indication of escape from cholera presented itself. What most satisfied me, was the appearance of bile in the motions, and, as in every instance of recovery without exception, that I have witnessed, plentiful evacuations of thick yellow bile seemed to be essential; so here, by the less frequent exhibition of the calomel, and by diminishing the dose itself, this effect was maintained, and with it the reduction of the febrile heat, thirst, restlessness, and every other bad symptom. In this case neither opium nor any other stimulant whatever was administered. The diet afterwards was mild broths, prepared from chicken or veal, rather than beef, the latter being too apt to keep up the febrile state.

Taking a case in its initiatory stage is decidedly a wise course, for it is like putting out a spark as compared with a wide-spreading flame. But when we know of cases where the period of invasion and of death lasted but a very few hours, from three to twelve for instance, it is manifest how little, comparatively, can be done, even with our most potent remedies. Nor must we overlook the fact, that to have recourse to very active remedies, is sometimes absolutely pernicious, by lowering instead of assisting the powers of the system.

On several occasions I have witnessed a most unexpected recovery from the stage of collapse,—the blue stage of cholera, as it is termed; to what it could be attributed I cannot say, but in one remarkable instance, I prescribed, with apparently no hope, the removal of the patient from his bed that he might be placed before a large fire, and then subjected to the free inunction of the milder mercurial ointment, allowing, at the same time, the thirst to be assuaged by a solution of carbonate of soda in cold water taken *ad libitum*. These measures were resorted to in the afternoon of Sunday, and on the Tuesday afternoon following he was in a state of convalescence. In all cases of cholera it is next to impossible to decide, when or how the malady was engrafted on the system; for even where the wife, whose case I have given, fell a victim, there was no traceable communication with a probable source of it; and when her husband came in close contact with her last breath, who can decide that the same exciting circumstances which

started the malady in her, were not actually the exciting causes in him also.

The susceptibility in both the above instances was a prior circumstance. It was not so with the cases at the Clapham school; for here the period of receiving the poisonous exhalation was very apparent. But in Asiatic cholera the *semina mali*, or the new susceptibility in the system, were, relatively to the affected subject, communicated at no determinable moment. No individual, is ever secure any more than a community, or a nation. Many countries and localities are continually corroborating this position. All debilitating influences favour the appearance of the disorder. If national disasters, for instance, occur, if enervating states of the weather prevail, or if extensive pecuniary losses depress the public spirit, Asiatic cholera will fall upon the people. More circumscribed disorders, moral or otherwise, will also favour its visitation in particular districts or amongst demoralized persons. Nor do we overlook the neglect of cleanliness, of ventilation, of good drainage, and of obvious rules for the maintenance of personal health.

A source of instruction is presented by the Clapham visitation, from its attacking its victims with a fatality and severity according to their respective ages, the two youngest boys being carried off, whilst the usher was the only person of adult age attacked. Immunity prevailed amongst the workmen, although they were most exposed; a resisting power was to them, not merely temporary but permanent tolerance; they inhaled the miasma of the drain in common with the children, but

their blood tolerated its presence, and the vigorous state of their organs was able to eliminate it again as innoxious vapour, or to envelope it in urine and perspiration, in bile and fœces.

The successful remedy, the compound of calomel and opium, affords instruction also; for, whilst the opium relaxed the membranes and slackened the tightened condition of the bile-duets,—the spasm in short,—and calmed the extreme irritability of the stomach and bowels, the calomel favoured the secretion of bile as an action of the liver, and thereby established a more natural movement of the vital organs with dilution, neutralization, and expulsion of the morbid exhalation and excretions from the previously vitiated blood. I will even venture to say, that the opium acts its especial part upon the whole extent of the *paria vaga* and sympathetic classes of nerves, and at length upon the cerebral and spinal classes also.

With regard to this remedy,—this combination of calomel and opium,—I can truly say, that it is one of singular efficacy in many disorders both of an inflammatory and spasmodic character. In inflammations of the lungs, the liver, the intestines, the kidneys, and the peritoneum, it is of immense value; for my own part, I cannot say too much in its favour, and, for ocular proof of its beneficial power, I have only to refer the reader to the treatment of inflammations of the delicate membranes of the eye. Our best Physicians and Surgeons well know its value, for, like myself, they have seen it arrest these inflammations in their destructive course;—by its employment the opaque and thickened deposits, the film and the obscuring cloud

disperse, and a precious organ, as well as a valuable life, is saved from destruction. This remedy sprung not from Homœopathic reasoning, though small doses often avail much; and a billionth part of a grain would be a hopeless substitute for the grain itself, forming as it were a clod to stand upon as compared with a mountain. If in this serious invasion of the delicate structure of the eye, its vision were lost by faith in Homœopathy, the Homœopath should be indicted for *mala praxis* without benefit of clergy. But it is a hopeless task to combat the Homœopathic theory and its *far-niente* practice, when the medical profession withholds its sympathy from those who fearlessly lead the attack. Well may quackery, under such circumstances, flourish!

Another important circumstance affecting the constitution of the blood in the female is, the state of pregnancy, during which this fluid manifests, in its coagulum, a condition similar to what occurs under common inflammation, namely, the buffy or yellowish coat on its surface. And how greatly is the whole constitution of the woman altered during this marvellous process! the fruit-bearing womb is daily demanding of the blood an increase of supplies, for the growth and nutriment of the embryonic form. This form is literally an offshoot and not a mere continuation of either parent; for it is a *tertium quid*—a third term—from the union of the two, constituting no part of either. It is in fact a new identity, and neither paternal spirit nor maternal body can claim it back again. Possessing the nature of the former, it feeds, as a new creature—an independent essence—upon the latter. It presents similarity without being the same, deriving subsistence

from the placenta without identifying itself with the maternal form. Nay, it can imbibe the disordered juices, the pocky virus of the mother, and is amenable to the curative process by independent circulation and a self-preserving power. I have seen the wasting mother produce a well-nourished offspring, and, die contented at the success of the issue. Well may longings and cravings, exhaustion and nausea, nervous efforts and retchings of stomach, take their turns in the category of the struggle, down to the latest throes, to bring a new nature,—a new economy to the birth. Oh, love maternal! art thou a part of human nature? Dost thou reflect the love paternal? Dost thou embody its spirit and make thy appeal there for protection, security, and consolation, while devoting the best of thy life's blood as subservient to his will, for the reproduction of himself? Thou dost indeed assert the nobility of human nature, when beneath the dark veil of evils accumulated almost from life's beginnings, thou still lovest another better than thyself. And what a change again in blood, nerve, and gland, does the pregnant state induce! For a fluid next akin to blood is supplied for the nutriment of the tender offspring; plentiful and rich it issues from the breast with a freshness and sweetness increased by the purity of maternal affection. And how terrible are the effects of the stormy passions of woman upon this nutrient fluid, exhibiting an intensity sufficient to convert it into a deadening poison, a fatal draught for helpless innocence!

Such are the consequences of the wickedness and weakness of woman—of her weakness on the side of virtue, of her strength on the side of sin. How tran-

quill then should the nursing mother be to secure the health of her offspring, and how careful also should she be of her health, during the period of lactation. The restlessness of the child will often indicate the fretfulness of the mother, her impatience and her anxiety: for her milk is wholesome or unwholesome according to her own condition both moral and physical.

I know no fact so decisive of the close relationship between the puerperal state and the blood, as that presented by the process of lactation. It does not affect the argument, that the breasts are concerned in the production of the nutritious compound, nor that a structure of determining vessels, complicated nerves, lobules, and ducts, is given, with a direction towards a prominent centre of erectile faculty and exquisite sensibility. Nor does it alter the question that mental influences, and corporeal states resulting from sudden emotion and affection, concentrate their influence there; for all these organic forms may exist, while the nutrient fluid is an impossibility; the pregnant state is required as the necessary condition of its production; and what is more, the altered nature of the blood, and even its altered constitution, are the indispensable and primary requirements. For I maintain that from the first moment of pregnancy, a change begins in fluid and vessel, in spirit and nerve, with new attractions and determinations, that spread themselves forth from the ovarian centre in every direction, quickening every fibre whether of cardiac or cerebral origin. Thus every part systematically conspires in the wonderful work of its own reproduction, forming a new creature the counterpart of what itself helps to constitute. Even con-

sumption stays its destroying influence during this renewing process; the doomed patient is quickened into new life for the parturient period; her blood freshens up with new activities and inspiring powers; it hastens its rounds of service to satisfy every new necessity of the fœtus. And though this may be but an inheritor of her own blighted nature, yet before the blight is fatal, it may be instrumental in re-establishing the stock by means of rectifying causes resulting from better regimen and intermarriage with healthier subjects. The pregnant state arrests the wasting process of the phthisical condition, but does not cure the fell disease.

In the male subject, another condition of things is established, for with the tubercular deposit in the pulmonary tissue as the formal element of the disease, there arises a stimulus to hasten reproductive power, by quickening the demand upon it, lest time and opportunity should be lost to the future.

Even the colour of the venous blood, is, in the pregnant state, heightened to a brighter scarlet than usual, so much so as to give it the appearance of arterial, rather than of venous origin. And if this is its appearance, as a returning stream, after the expenditure of its nobler parts for the wants of the body, what must be its condition, or its nature and constitution, prior to such immolation for the life of the cerebral and vascular organs, and of all their dependent structures, whether pulmonary or glandular, sensory or motory? The whole organism is roused to sympathies and antipathies that constitute a new nature, and even new materials are craved to maintain it, common nutriment lacking its ordinary satisfying power. I once asked an

oyster-dealer what was the greatest number of oysters he had ever supplied to a customer at one time ; he replied, "I have served a lady in the family way with fifteen dozen, every one of which she ate and paid for in my shop." One instance is as good as a thousand of the craving for some particular article of food during the period of pregnancy ; and of this we may be confident, that indulgence of this peculiar appetite in secret, is far more frequent than ever comes to our knowledge ; it is not, for the most part, injurious, less so, probably, than it would be if ungratified. And who can deny, that to withhold the gratification as unreasonable or even unnatural, or as being opposed to medical rule, is one of the many causes of abortion, for which the patient has to endure confinement, privation, and other health-destroying treatment by way of counteraction. This mode of treatment is very frequently nothing better than a mere habit of indolent refinement, though ostensibly prescribed with a view to quiet and compose the nerves of the patient, which, after all, only become more morbidly delicate and sensitive.

Miscalled refinement does verily bring much evil and sorrow in its train, when artificial luxuries, and the absurd requirements of fashion, stand in the way of natural and wholesome treatment.

With these evil consequences, the Physician's vocation has more to do than would at first sight appear, and even a nation's degeneracy may be attributed to the substitution of mere pleasing and accommodating arts, for judicious rules in regard to personal and general management. When refinement takes a wrong direction, it speeds its course towards effeminacy, delicacy

and weakness of constitution, imparting a vicious quality to the temperament, which is, in every case, attributable to the blood as its especial source. I speak not of one age, nor of one generation, nor of any particular class of people. Whatever vice is prevalent among the higher classes descends to every grade. It is with these as it is with the majestic trees of the forest of a thousand years, the returning sap leaves the foliage tinted richly with the varied colours of autumn, a seeming mark of beauty, but, in truth, a sign of gradual decay. Whereas a young and thriving community, with the reflex current from its healthier, and, in reality, more refined views and springs of action, becomes a vigorous and enduring nation; the periods and cycles of its existence being so many additions to the strength and compactness of its growth. Every nation is indeed young, so long as it overcomes the debasing arts of selfishness, whether it be rife in the ecclesiastical, the political, or the commercial sphere; for selfishness in any of its multitudinous forms, is a taint of human nature that falls as a blight upon its every inmost faculty; it is the bane for which there is but one antidote, and the paramount duty of the Physician's high vocation consists in leading the van of disinterested action, not in profession only but by unswerving example. The noblest part of his calling is that which proceeds from the love of his neighbour; for out of it spring those refined and sympathizing qualities by which his life's pathway is strewn, and which are as the leaves of the tree for the healing of the nations.

Large intellectual qualifications are demanded of the

Physician, by the community ; but though the demand may be supplied, yet both the medical faculty and the community may be steeped in sheer selfishness—both may be in a consumption, as it were, when they imagine themselves sound ; each party may be judge in its own case, whilst each is losing all true disinterestedness. Prudent confidence, that best sign of moral strength, may also be a diminishing quantity, excluding even the most conscientious practitioner, who, though possessed of all requisite knowledge, scorns to regard it as the exclusive source either of honour or of happiness. Intellectual qualification and high civilization are no sign of real refinement of manners, for, as I have before observed, the highest, the farthest-seeing understanding, may be the best tool for the worst will, and thus most deceptive, and most productive of an unsound state of society. The hectic flush can beautify the face of inward corruption, and the “ Physician for All,” without party predilections or class-service, is fearless of every penalty that may unjustly attach to his statement of the fact. The health of all is his object, and the soundness of every faculty enjoyed by human nature. To this end, a healthy constitution of blood is indispensable, and this cannot be brought about but by the observance of spiritual, moral, and civil laws. These laws, indeed, are as the *Materia Medica* of the world, each remedy of which must be of special administration according to each special necessity, for drugging by substitution can be of no avail in any case.

In contemplating the healthy constitution of the blood, we behold a glimpse of the Divine Wisdom contained in the declaration concerning the conse-

quences of drinking the blood of Him from whom the declaration proceeds. They are nothing less than man's taking a delight in all the requirements of order and truth, freely imbibing the principles which flow from and return to the Creator Himself, an unceasing circulation of good. And civilization is a mere delusion, if it means no more than intellectual advancement, irrespective of the refining process which ought constantly to elevate the heart. The very blood of a people degenerates in proportion as it lacks the glow of charity, that truest nobility; the race becoming proud, revengeful, covetous, and cruel, their natural complexion even indicating degeneracy.

Oh, England! may thy young blood become younger in all the exalting qualities which spring from loving another better than one's self! For then will thy constitution be secure against the debasing consequences of selfishness, and thy race be always a regenerating, rather than a degenerating stock—a ministering angel of light and life for the people who sit in darkness and the shadow of death.

The constitution of the blood again, is affected by age. The fluids and atmospheres of nature—water and air, to wit, are subject to their defilements and changes of condition, and they undergo a kind of circulation in the processes of purification from their contaminations. Sediments, evaporations, congelations, condensations, rain and flood, and ocean's troubles which bring corrections, maintain freshness for the one; whilst heat and cold, vibrations, agitations, winds, and stormy tempests, lightning's flashes and pealing thunders, secure salubrity, and property emulous of spirit and life, to the

other. These fluids wax not old as does the blood, though like it, they are charged with, and rid themselves of, impurities. Rivers and the vasty deep, are as vessels to the one, the clear firmament with earth's solid surface, contains the other; and a play of affinities, of partitions, and actions, which beget the sciences in the womb of time, concern the two as partners in the same bed. But for blood, there are vessels of cardiac calibre and cerebral subtlety, whose coalitions produce the symmetrical framework of animal and human structures; its ceaseless circulation there, ensures them warmth and pliancy, nourishment, nature, action and sense, to enable them to perform the purifying and reproducing processes on which its own existence and welfare depend. In this circulation, however, disturbing causes prevail so much, which have nothing to do with nature's elements, that they induce states of body which reflect their own conditions upon the blood itself, or subject it to its fates likewise; and who can contemplate the stages of the blood's progress from infancy to old age, without a feeling of interest, as portrayed so touchingly in the several periods assigned by our immortal Bard to our earthly existence? Who can reflect sufficiently on the millions of rapid circuits this fluid performs in a life time for its own preservation and for the organic weal? who can dwell upon the fact of every organic link, being linked with all and each, at once, by a compact and unity most marvellous, and not perceive how all this brings the stamp of age, and even a death premature upon the ever-consolidating fabric? Age and stiffness, age and tardiness, age and oblivion would be a sad inheritance for an existence that can

contemplate the glories of immortality without being itself immortal. In counteraction of this, there is a vitality in every sanguineous atom of human nature, which works to impart of its own immortality by inspiring a love of the immortal, and by building a temple or body in which that love may for ever burn a flame of light inextinguishable. Call it a soul, or a mind, or what you will, it is an enduring consciousness of life surviving all death and insuring youth perpetual, when faith and charity are the aliment on which it has fed for its time and its sufficiency.

The inheritance, however, is sad, when life's torches and flame are sustained by grosser stimulants of earthly origin and sulphurous nature, to the exclusion of all the milder elements which, in wisdom's all-comprehensive language, take the name of the oil of gladness.

Though to this globular volume, and to its engendering fluids, chemists of sharp research devote their every well-practised faculty, yet their art can never avail to make it such as it is, either in appearance, in colour, elasticity, or any other outward property whatsoever. They may destroy it out of or in its native vessel; its nature, its constitution, its determination, its continuity, and its quantity may all be perverted, disordered, and changed; yet has it a vitality, as a source of its being, which is foreign to the nature of its merely natural substances, and by virtue of this, its especial essence, it is reproductive in power, conservative in virtue, and fruitful in effect, at its every round.

With properties so correspondent with the ideas we attach to life, "the Physician for All" cannot pass the blood by as a matter of little moment in his

efforts to secure its wholesome constitution, or to rectify its disorders. He may have seen much service in his vocation, and received but little notice as an authority for regarding the blood as a most important object of medical attention; he may have lamented the petty pursuits of his brethren to catch a crystal of lithic or of lactic acid, to the neglect of instruments of higher faculty than microscopes, or test tubes, valuable as these are in their places. He may have smiled at the extravagant praise bestowed on new remedies and new preparations inserted in the already crowded pages of the Pharmacopœia, only to be again superseded by the older and the better. But he cannot lose sight of the indifference that prevails with regard to more abstract considerations, nor of the bias of the mind to burthen itself with the results of experiment, regardless of the conclusions deducible from experience. One globule of the blood of an infant may be to the chemist's ken no less interesting than is a group of stars to the far-seeing astronomer. Infinite Wisdom sustains the one as well as the other. In all our aims at skill and knowledge let us as a profession behave ourselves as becomes wisdom's scholars, and learn lessons to make us childlike in her temple; for by soft material and pliant structure the blood of infancy is distinguishable, playfulness and harmlessness are its spirit, and the choicest patterns for imitation display themselves, so that muscles move in smiles, whilst the clear skin can brighten up with roseate tint gladdening maternal fondness and gratifying a father's love. Let us not then despise these little ones for they teem with deepest interest by reason of their

high association, even though the stable, the cellar, or the garret, be their first breathing place.

I have referred to the blood of infancy as an example of the paramount importance of the philosophy which essays an improvement in the human constitution in general. For it embraces a subject which has been too much neglected, though it involves every consideration that pertains to the health, the welfare, and the advancement of the human race.

Statesmen, theologians, and the medical profession are all forced to work in the great field of Hygiene. To rectify contaminated blood is a business devolving upon them from sheer necessity; for the sources of its outward contamination they are making diligent search. There are, however, sources of inward or moral contamination also for them to discover, if they would complete their new and extensive undertaking.

The habits of a people become nature in their offspring, and this nature may be so oppressed as to receive the downward tendency which is indicated by an excessive proneness to merely worldly views and selfish gratifications. This proneness will become conspicuous in its appeals to greatness, to power, to wealth, to knowledge in proof of positive prosperity, regardless of the cardinal virtues which produce real refinement, the very form and manifestation of gentleness, simplicity of character, kindly sympathy and pure benevolence.

When, however, magnificence and wretchedness, wealth and penury, co-exist side by side in the greatest city of the world, we have a great fact demonstrating spiritual destitution as the one great evil. And of what

avail to human happiness or to human prosperity in its wider acceptance, is greatness or power, wealth or knowledge, if they are not applied to the ends for which they are given?

This spiritual destitution, moreover, is only known to exist so far as it seeks to rectify the evils of which it has become sensible. This knowledge will advance, I trust, to the philosophy and the wisdom which regard the welfare of the many as paramount to that of the few; for then only will greatness and power, wealth and knowledge be permanent in their influence.

The blood of a people will always be assimilated to the nature of the principles which actuate them; thus verifying the words of Divine Truth, that the iniquities of the parent are visited upon the children unto the third and fourth generation, whilst the mercy of the Divine Goodness descends to the thousandth generation of those who love it and observe its requirements. We must, therefore, take our stand upon the high spiritual ground of pure Christianity, if we would advocate aright the moral and physical measures necessary to ensure the permanent improvement of our social condition. The blood of infancy viewed in this light is fraught with surpassing interest; and on every ground I would call upon the philanthropist to direct his efforts to the young, for here will his struggles for mastery over the perversions of nature be most successful. Would that our own metropolis could take them in its giant arms and with a strength of purpose equal to its means, draw them closer to its sympathy to tell them the best of their capabilities and teach them how they are to be realized.

The management of infancy and childhood is more-

over worthy of a nation's wisdom and greatest care; and public endowments and institutions could not be too largely devoted to improve it. Well would it be if religious differences were less active only to interfere and obstruct. But even the diseases of infancy and childhood are in the present day treated by a class of medical practitioners who view this as their especial province; another split is thereby made in the profession, and the "Physician for All" is lost to general utility with regard to his success in the treatment of this class of maladies.

How pernicious, again, is the practice among mothers, more especially of the lower orders of society, of giving their children sips of ardent spirits—the last dregs of their own hot draughts at the counter of the Gin-Palace; thus both by their own contaminated milk, and by drops of liquid fire, the blood of their offspring becomes a source of misery and trouble to themselves and others. The vitiated spring, with its little organism of stimulated appetites, soon craves for repetitions of the stimulus, to the disrelish of milder drinks. Peevish and pale, shrivelled in its limbs and countenance, with swollen stomach and tottering step, we behold a child of sorrow, a picture of woe, whose misery appeals to the sympathy and protection of the legislature. Often have I seen the wizened mother administering the deadly potion to her puny babe, its face writhing the while under the peril of suffocation, and the big tears rolling down as if in sympathetic action with the salivary gush, to dilute the burning stream; and as often have I wished the spirit were a costly liqueur for the rich rather than a cheap destroying dram for the poor.

But the constitution of infaney and childhood is tampered with in many other mischievous ways; in all classes of society foolish indulgences abound; excess in every particular is observable;—high wrought stimulus is the prevailing mode to multiply and to pamper their wants. The nursery, the school, the college, the theatre, all present an excess of excitement, producing precocity in the child, but impairing the health of every faculty by prematurely developing the judgment. Were it not a serious thing to contemplate, I might be excused for smiling at the self-opinionative turn of the young ladies and gentlemen of the present generation. On religious and secular topics of every kind they are quite at home, the best divines, philosophers, and politicians, are they; and as for medical qualifications, their opinions on this matter are infallible, and not to be questioned. Impatience, irritability, and disobedience are the inevitable result, destroying all domestic peace. This precocity of the faculties produces also a plethora of unwholesome ingredients,—every meal must be rich; the stomach becomes overcharged and the constitution consequently suffers from indigestion. The mind indeed needs discipline, for a healthy action is as needful to its welfare, as a rightly tempered digestion is to that of the body.

But in bright contrast with this state of things, we have an illustrious example in the family of our own most gracious Queen. For it is here that in a pre-eminent degree obedience and submission to every requirement form the pervading law from the highest to the lowest. This is a great practical virtue which constitutes the foundation of every other; and will, doubt-

less, cause its influence to be felt, more or less directly, through all ranks of society. At all events this is a consummation most devoutly to be wished. Her Majesty could not receive a more loyal or a more noble homage.

Conceive a nation acting from the principle of obedience from the very cradle ; its infancy, its childhood, its youth, and its manhood, must then all be healthy and vigorous, producing a race of honourable blood and high descent, for of virtue's stock it comes. Its courtiers will be sincere, its nobles exalted in wisdom, its priests pure in doctrine, its judges skilled in judgment, its warriors discreet in courage, its physicians skilful to heal, the people loving their duty as a service to their country. And of all this is our most gracious Queen a living, bright beginning, by the inculcation of obedience throughout all the domestic relations of life. Well may the prayers of a great nation be offered up for Her.

The diet of infancy and childhood is of vast moment, not only for the time being, but for future health, strength, and longevity. No faculty, whether mental or corporeal, admits of being overtaxed as to its especial duties. The digestive faculty is no exception to this ; here indeed indulgence is sweet to the mouth and bitter to the stomach ; for the effects advance further than disordered bowels, and pursue their course till the blood is saturated with ill-assimilated materials. I have said enough of certain liquid stimulants to form a clue to the consequences of the rest, when given in excess. Of the kinds of solid aliment for youth, the most objectionable are hard salted fish and meats, and pickled

substances, which are too frequently used in our public and private schools and other institutions.

The gastric menstrea of this period, like the digestive apparatus, are easily deranged. If this consideration be disregarded by parents and nurses, a potent cause of fever, of glandular obstructions, of structural congestions and inflammations, is at work every moment, in addition to the innumerable casualties incident to the young, such as measles, whooping cough, scarlatina, and other rashes, irrespective of acute and chronic affections of the brain, scrofulous tendencies, imperfect developments, or troublesome dentition. The secretions, which are at first healthy, become, by over demand, disordered; the aliment is then of necessity ill-prepared to form good chyle, and a bad pabulum for worse blood results, till all acquires a wrong condition, unless the progress of the mischief be checked by timely and judicious measures. Very often I have, I believe, prevented a threatened invasion of serious illness by such precaution: and I am, moreover, very sure, that by careful regimen and diet, the serious seizures and fatal terminations we meet with in cases of the eruptive fevers, would become less frequent.

The more destructive epidemics, again, which we either read of or experience, are but so many plain indications of the ill-constituted blood of the community assailed by them. Nor will I except the most recent scourge,—the baffling scourge of humanity, as I have already designated it,—for it also indicates a very low condition of the blood of a people, which establishes the constitution of a period, as Sydenham would have said, rendering them liable to the terrific invasion either

epidemically or contagiously. For as spontaneous combustion may occur in substances favourably circumstanced for ignition, so vital substances, such as are elevated to an active condition by the agency of vital processes, may be inflammable from spontaneous causes, and spread their destruction among what are termed predisposed subjects. The choleraic constitution, contrasted with the simply inflammatory, has afforded a most striking illustration of the fact in our own day. To my contemporaries I appeal for its corroboration.

I would here offer a few more remarks on the pregnant period in women. Subject as they are to curious longings and unreasonable cravings at this period, their constitution,—and, in fact, their whole blood undergoes a marvellous metamorphosis. For there is a new nature, a new identity, springing up, a new being is establishing new relations, new passions, new appetites and sympathies in the old. Even horrid antipathies will present themselves to endanger safety and beget disgust, where attachment and confidence had reigned before. I have known, indeed, the pregnant mother hate the sight and name of her husband, and for months afterwards, become the deluded inmate of an asylum. This change is not confined to fluid nature, but arteries and veins, and, as some physiologists will say, even nerves distend coincidently with the abdominal distension, all which can only return to their pristine state by a laborious expulsion of the fœtus, or by that ancient infliction, rendered still more difficult by bad maternal constitution and conformation.

Too often is the pregnant period one of ailment

and great distress, and this is a more frequent inheritance amongst those trained in the lap of luxury than amongst those of hardier mould. The subjects are not healthy even at the commencement of married life. The aid of a skilled and experienced Physician may be most wanted, when it is least thought of, to avert an unexpected calamity, or a series of wearying and perplexing ailments, beginning from the very first, and causing years of distressing anxiety. This should not be, and need not, were foresight and prudence duly exercised. These ailments, moreover, are not unfrequently a permanent evil; for a bad start in the great race of human life affects the whole future, unless it be met by timely correction, and judicious treatment. Nor is this all, for the present generation affects the one that is to succeed.

Moral and social considerations influence the health and constitution of a people from the very cradle. And, as obedience is a fundamental virtue, necessary for the health of every faculty, whether physical or mental, we may on this principle identify the constitution of the mother with that of the offspring; mothers, in every sense, make the men, for they are the very moulds in which they are cast. How important then is it that the maternal constitution should not be tampered with even by medical hands. There is a practice now become common, the leading practitioners of which make much gain by it, and it is indeed profitable for *them* but for none else. The operations are so secret, the mysteries so deep, and the instrument so peculiar, that mothers and nurses from alarm and astonishment, almost lose their senses, at all events their common sense. The very idea of local ulceration and discharges

distorts their judgment. Parents and husbands should look well to this! the process is not fostered by the medical profession as a body; it ought rather to be considered as an artifice, a speciality too specious to be trusted; it is a demand upon modest confidence too great to be responded to without frequently incurring serious expense, and endangering delicacy of character. It is, to say the least of it, most unnecessary; and the profession has only tolerated it as subsidiary in extreme cases. My experience confirms this view of the case, and as founded upon true philosophy, I wish to urge this fact upon the calm consideration of the public. I could relate circumstances of actual occurrence which would shock my readers, and which indeed justify me in denouncing this most unseemly practice.

Nor is the female in the peculiar phases of her constitution, the only subject of such mischievous practices. The youth of the other sex also, as he approaches manhood, is too frequently terrified by descriptions of the consequences resulting from immoral habits. This is done moreover, ostensibly on moral grounds, though the real design is, to suggest a pruriency in such matters, and to create the very mischief which it professes to desire to remove. I would put into the hands of every young man the double-edged weapon of truth to correct and defend what requires correction and defence. No young man is required to give up his judgment in this matter to minister to the avarice or dishonesty of advertising pretenders. I would in the earnestness of affection entreat the young to divest themselves of all fear and alarm so foreign to their true nature, and so prejudicial to their healthful constitution, and manfully to control their lower by their higher capabilities.

The constitution of the blood, again, being subject to so many and so various disturbing causes, has like the corporal structures, its own defence against injury. What the bones are to the flesh, that the salts are to the fluids; and if we had microscopes of adequate power, we should gain an insight into greater marvels than even the insect world presents to our aided vision. In saline forms and their relations to each other, there is a law so mathematical in its application, that if it is said to be accidental, it might, with equal truth, be affirmed that the laws of gravitation are accidental also. The salts found in the sanguineous volume take their places there, and perform their parts with as much order as can be expressed by attraction, combination, and arrangement. We behold the milky way, and by armed vision, we can discover the nebular groups, and we may be certain that the starry hosts of which they are constituted, are under the control of specific laws, but we do not perceive, nor can we imagine the precise order and government which are at one with the grouping, attracting, and combining power. Still we may have sufficient intelligence vouchsafed to us to believe that it is infinite wisdom in unison with infinite love which ordains and controls the grouping and the motion.

It is the same, precisely, with the saline and other ingredients of the blood, which have their groupings, attractions, and combinations as well as their opposite or destroying tendencies. This latter circumstance, however, the starry worlds could not in their perfection of movement tolerate for a moment; they, indeed, have their disturbing influences, but no destructive

liability, and therefore they need no renewal of their component substances. The Pleiades, Orion, and the Pole Star, for instance, are the same in substance now as when they were contemplated by the sages of old. The stars and blood-globules in common are amenable to change of place; but change of substance pertains to the latter only, and that every moment, and change of nature, of constitution, and even of every quality or attribute also. And how is the perpetuity, the equilibrium of continuity and the order sustained for a life time and for generations of this blood? By power, by wisdom, by laws of action, which a knowledge of more subtle nature,—such as magnetic and electric media—could alone help us more clearly to perceive. Suffice it for our purpose, that certain salts found in the blood perform their indispensable uses for the other constituents, of a preservative, an antiseptic, and a solvent kind. They have also a combining and a purifying quality, and act upon the temperature and colour of the blood. These are the chief uses performed by those salts of the blood which are homogeneous with its nature. Common salt possesses a universal homogeneity, so to speak, to the blood of man and animals, which sanctions the name it bears; its uses being especially antiseptic, solvent, and cooling, judging at least from its effects upon the animal economy. With this view I once prescribed common salt, in doses of a drachm twice a day, in almond emulsion, to a patient upwards of eighty years of age, suffering under glandular enlargement. Under its employment the old patient's malady disappeared altogether, and he lived for ten years longer the degraded slave of sensuality. His ease was an evidence

of the power of common salt upon the blood of an old constitution; it was the only remedy I used, and his tongue became clean, his skin clear, and his secretions good. He was rich, he essayed to lead in a fashion even; he kept a hospitable board, but his chief thoughts were about himself and his pleasures; he had a well-stored library; he groaned under compunctions,—philosopher and adept in much metaphysical lore he was a strange compound of humanity, an instance, indeed, of multitudes who need the “salt of the earth” for their mental correction, as well as common salt for their bodily support and purification.

I have found that other saline laxatives will effect the same good, if steadily and judiciously employed,—they will even act as successfully as multitudes of waters, whether natural or medicated, indigenous or foreign. Were it not so, what would become of our diseased poor? The Great Physician is here the “Physician for all,” providing an infinity of means for a health-working end, however strong the tendencies of the creature are to monopolize, centralize, and circumscribe them.

But with reference to saline remedies for the removal of many disorders—their great consumption declares their value—of Epsom salts alone many tons are consumed in England annually for the purposes of health and for the removal of the obstructions that stand in its way. Cheltenham salts, again, will prove in every family an equivalent for three-fourths of the saline springs of the world; by their help I have removed the thickened humours, and chronic soreness of joints that have been invaded by acute attacks of gout and

rheumatism. Often do I meet *ei-devant* patients, who were once hobblers upon *crutches* on account of tender feet, swollen *aneles* and knees, and shapeless hands; but who forgetful of their former state, forget also the simple means by which their restoration to health was accomplished. A "Physician for all" is remunerated by the very fact of the cure, if not by the popularity of it, or by the puff direct which so often enriches the pocket. Dr. Drenschmister, of Dörsdorf, and Dr. Drinkwasser, of Quellensbad, are the two great foreign loadstones that vie, in their power, with the animal magnetism manipulating at home!

The influences of saline matters upon the constitution of the blood vary indefinitely, and as some salts admit of being taken into the circulation with but little change, they can traverse the various organs of the body in the manner described with regard to solutions of arsenic and corrosive sublimate. Each exhibits a more or less special determination, and takes its name as a laxative, a diuretic, or a sudorific accordingly, passing along with the rest of the constituents of the blood, but so amalgamated with them, that it would be impossible to separate them by any chemical art when the blood is removed from the body. In this way the blood may be regarded as a universal menstruum and solvent, possessing special affinities that baffle all art to determine their proportions, strength, or duration. As it is with intoxicating fluids, so is it with these; they part with their own nature and form, and come forth, by organic instrumentality, in new associations and combinations that defy all chemical reasoning, founded upon positive analysis. Sometimes the urine will, to a

certain extent, yield salt of this or that character : thus the patient may have taken the sulphate of magnesia in considerable quantity, and yet no secretion or excretion will shew that it has been present in the system. Frequently this salt is so far decomposed as to allow of its mineral base, namely, sulphur, escaping with the bile and other discharges. It works great changes nevertheless in the constitution of the blood ; a most important fact which is abundantly confirmed by long observation of what occurs in the case of some simple bilious derangement, or hepatic obstruction, accompanied by more or less of febrile disturbance. A patient presents himself to me under such circumstances, his skin is sallow, his tongue foul, his stomach irritable and nauseated, his urine red, or yellow and turbid ; his pulse 120, hard and vibratory, and his general condition altogether threatening an invasion of more serious symptoms still, involving either the lungs or the brain, by congestive or inflammatory oppression. The pulse, tongue, and skin indicate that the blood is in a bad condition ; that by reason of its unfitness for circulation obstruction prevails almost throughout the whole capillary system ; that this unfitness is attributable to the impurities which are made manifest by the foul appearance of the skin and tongue, by the bad taste in the mouth caused by vitiated saliva ; by nausea and sickness, produced by foulness of the secretions into the stomach ; by the loaded and unnatural state of the urine ; by the brown, or black, or white, or clayey colour of the fœces ; by the alternations of heat and cold, felt by the patient ; by want of appetite, by loss of strength, by head-ache, and indeed by a general *malaise*. For this

condition of things I mostly prescribe two pills, consisting of colocynt, blue pill, henbane, and scammony in doses of two grains of each, with a mixture containing the citrate of soda and sulphate of magnesia dissolved in water. The pills should be taken every night, the mixture early in the morning, and repeated at noon; and if there is much sickness or fever with thirst, some effervescing saline powder with or without nitre, *ad libitum*. By this means, without any other medicine whatever, I have proceeded for some days consecutively with scarcely any variation, to the removal of all the symptoms and conditions above enumerated. To remove impurities from the blood was my leading object, by rousing the liver and kidneys to greater action. Stimulating the bowels, allaying fever and thirst; maintaining a state of quietness, and an equilibrium of the circulation through every organ, are all secondary to this object; and a clean tongue, a clearing complexion, a softer and less frequent pulse, a diminishing aversion to food, are so many assurances of returning health. An irritable mucous membrane of the lungs or of the stomach and bowels form no embarrassment; for even if bronchitis were added to the category of ailments, I should be content to proceed in precisely the same way, knowing well that the stuffed and irritated air-cells, would soon be relieved of their oppression and spasm, their phlegm and cough.

Frequently have I asked myself why there should be so many treatises on diseases of the lungs, the liver, and the stomach, as if they were so many isolated complaints, when scarcely any one organ is exclusively disordered, or could long remain so, since even a whitloe,

or a boil, will bring on a series of morbid actions that require as much consideration as if the primary mischief were absolutely an inflamed organ *per se*. To say that one practitioner is clever in lung diseases, and another in those of the liver, is an absurdity that cannot be too soon repudiated by the profession, for upon such usage we ought to have a college for especial examination in each disease. This would, indeed, be a splitting of straws, or a catering for the monopolizing spirit of selfishness, and its dim-sighted view of its own interests.

The more nutrient parts of the blood, such as make up the fibrine, and the albumen, or the azotic, the oxygenous and carbonaceous elements, together with the saline parts, constitute a volume from which may be produced an endless diversity of secondary, tertiary, and quaternary compounds, viz., muscle, membrane, cartilage, skin, bone, fat, &c. It is, therefore, a most marvellous circumstance, that despite the many counteracting agencies which are at work, to supplant life by death, this compound fluid should be possessed of such an animating power. We cannot be surprised, indeed, that between these two extremes, there should be so many intermediate states to affect the health which life imparts. In a body that is subject to these states there are numberless preservative and rectifying actions operating every moment, but they are not sufficient to the end required, even though the indolent principles of homœopathy tax them to the utmost. For to rectify disorders, to remove accumulated impurities, to sustain and stimulate vital power, to recruit and support animal strength, to supply deficiencies, to neutralize acridities, and to effect a multi-

tude of other purposes, medicines are provided, a *Materia Medica* of world-wide abundance is within our reach, all which affect the constitution of the blood in some especial manner. A "Physician for All" has his mission in these as well as in his experience and philosophy; by the two latter he renders the first efficacious, though it may be taken as a matter of course, rather than as a proof of skill or discernment. According to the one estimate, the best experience becomes a nonentity to society, and according to the other, it is superseded by the arrogant pretensions of mere sophistry. Every "Physician for All" is liable to this fate, his experience and philosophy too frequently die out with him, and his mission ceases for the present generation and for posterity, unless he writes a book to make them his friends, or to convert his contemporaries into disparaging rivals.

To my *Six Lectures* I must refer the reader for an account of the modes by which the articles of the *Materia Medica* influence the constitution of the blood; for were I to tell him how to cure this or that disorder, according to an old Lady's Receipt Book, or some General Dispensatory, I could not impart the necessary discrimination between one disorder and another, nor the requisite judgment as to when and how the remedies should be selected and applied.

Discrimination and judgment are the legitimate produce of long experience, not the result of loquacious pretension; they come, moreover, of an honest parentage, and are not to be bought or corrupted. A "Physician for All" cannot say too much in praise

of discrimination and judgment, nor lament too greatly the little estimation with which they are regarded in the present day, judging at least from the ready adoption of every conceivable nostrum. To improve a bad constitution of blood, is next in importance to changing our old nature ; the one is the work of the Great Physician, the other is the work of a " Physician for All," who must know more about the properties of medicines than any specialist can pretend to ; for his general knowledge of disease gives him a greater power over every specific disorder ; and this knowledge contrasted with that of one type of disease only, is like the sight of an eagle compared to that of a mole. But the public mind has become captivated by the sophistry that great experience in one disease is necessarily a qualification for its cure, when the chances are that the patient who consults the special practitioner is not even affected with the disease for which he consults him. But does the specialist for this reason relinquish the case ? I have known, on the one hand, the " liver-doctor " ascribe an inflamed eye to a bad state of the liver ; and, on the other, an oculist allege that the inflamed eye disturbed the hepatic function. The " lung-doctor " I have known repeatedly at fault in diagnosis ; his mind being occupied with pulmonary disease as the ruling idea, he has quite overlooked the state of the heart as the source of all the mischief. The kidneys have very frequently been much diseased, and the stomach considered to be the origin of the bad symptoms in the case. I have known the brain to be the seat of disease, and its fatal affection lost sight of in the disordered state of one or other of the organs of the body,

as the lungs, the heart, the liver, the stomach, the bowels, and the kidneys. The reverse of this frequently happens; that is to say, when the brain is affected sympathetically instead of primarily, and when it has been pronounced to be in a softened state. "Softening of the brain" has, indeed, become a fashionable complaint now-a-days. But I have lived to see so many of these fashionable complaints become obsolete, that the more fashionable they are, the more I distrust them.

Change of air, of association, of country, can do much in effecting a change in the constitution of the blood; but in adopting it, the comfort and even the life of the patient are too often put to great hazard. But a change of doctors is a very hazardous practice, for each has his own plans, views, and appliances; each successively begins his system at its beginning, and intent on the cure, and confiding in his own skill, he necessarily works, as it were, in the dark, overtaxing the little health that remains for the restorative power to work from. By these means the strength is reduced, and instead of a rallying of the vital forces to ensure recovery, the collapse of death unexpectedly sets in. A rich man who had long been occasionally my patient, became more seriously ill; not getting better so soon as he expected under a new doctor, he called in no fewer than eight, one after another, and when he learned that he was in a hopeless state, he complained that the doctors had killed him. Being a very opinionative man, he was in fact always his own doctor. From what I know of his case, I am very certain that had he retained a "Physician for All" as his friend, and confided in him as such, his years would have been

lengthened. But then he would have had to follow the honest advice to lessen his attachment to money, for it fretted, rather than comforted him; his blood never circulating freely through his heart, where it formed, as it were, a stagnation; his countenance was consequently pallid, his limbs weak, and his skin always cold.

This inordinate attachment to money will, like every other passion, affect the blood's constitution and therefore the bodily health. Disorders of the digestive organs, as of the stomach and the liver, and serious affections of the heart, spring from this passion. The functions of these organs concern most especially the well-being of the blood, consequently, when they are impaired, the blood suffers, and in this way a circulation of mischief is introduced, requiring much tact and skill on the part of the Physician to counteract it.

How does the Painter portray the miser, or the victims of the other passions? The disorderly affections and appetites of human nature are deep-seated in their action, and therefore they fall upon brain and countenance, upon nerve and habit, upon muscle and gesture, conforming the body to their own ugliness; they are closely allied to the blood in all states and places, whether as a fluid in the nerves of subtle modifications, or as the purple stream in arteries and veins of slower undulations. And if here a new constitution or a perverted nature is imparted to it, which propagates itself to descendants,—an accumulating evil to many generations,—spreading proportionately to the indulgence and the fashion, then the whole framework of the body, and eventually of society, becomes constituted by

predilections, tendencies, and susceptibilities, quite foreign to the original intention of the Creator. In proof of all this we have no greater instance than the sin of avarice, for it is one of the direst forms of selfishness and vitiates the blood most deeply.

I once attended a man who was very prosperous in business, dividing an annual profit of many thousands with his partner. He was seized with cholera and died in a few hours; by his death, the partner succeeded to the whole of the profits, but they were accompanied by an overwhelming alarm that he too should be taken off by cholera; hence a conflict was set up in his breast, between the increased gratification of his love of wealth, and the sudden apprehension of death. I watched the effect upon his constitution, which up to this period was good,—within twelve months he was numbered with his fathers! So much for this absorbing passion! With the deepest regret then must the “Physician for All” see the passion of avarice make a deep inroad into the hearts of Britain’s sons. Too much deference is already paid to the possession of wealth. He died worth so many thousand pounds, is the great virtue inscribed on too many urns. Our children catch the sound of the praise, and the ambition which it engenders matures into avarice, and then, by a perversion of judgment, it denounces poverty as the chief sin. Let legislation then, as the controlling organ of the community, labour to stay the contagion of this twofold sin; the remedy is with it, and it is its duty to employ it by honouring the virtuous in preference to the rich.

The constitution of the blood is a large field to enter upon, requiring, as it were, railway appliances and

speed to traverse it; and the objects presented for our observation, follow each other so swiftly and unconnectedly, that to the common traveller by the old stage waggon, our notes must appear abrupt and imperfect. This cannot be helped, for it would take a long life to delineate the various states into which the blood passes, and to shew how it is constituted; for besides its indigenous properties acquired by inheritance or otherwise, it may be infected most viciously by accidental taints produced by the morbid intercourse of persons and the interchange of fluids. And these accidental taints are of a twofold nature,—the one, an infection of the serous, the other of the fibrinous part of the blood; the former produces a loathsome infectious discharge, from the pores and follicles that beset the entire urethral lining; the latter is a still deeper-working virus, obstructing the very fibrils it permeates, and producing local ulceration, with its accompanying virulent secretion, which inflames and ulcerates where-soever it collects in overpowering quantity. I need not dwell on these two forms of disorder; but I wish to illustrate, by their means, taint of blood beyond the power of chemistry to detect, and to demonstrate the existence of a function of the animal economy, which consists in determining the impurities of its blood to their especial seats according to their own peculiar natures. For this fact demonstrates our philosophy, and our philosophy explains the fact, while confirmation can be drawn from every eruption invading the skin.

I have been very successful in the management of these impure disorders, as they are called, as if they were

the only impurities infecting humanity. When a student at a great hospital, I reasoned out a treatment which has since been adopted very extensively, namely, to burn away the commencing ulcer by lunar caustic—giving a few grains of blue-pill once or twice a day simply as a precautionary measure. Were this the general rule of practice, I believe the direst forms of syphilis, with the large inunction and the salivation regime, would be of much less frequent occurrence. And what will many of my readers say, when I tell them, that the direful impurities which are engendered in the serous part of the blood, admit of being expelled;—that the condition of body which they indicate, can be rectified—without the helps of cubeb and copaiba? It was only this morning that an old patient reminded me of my completely curing him on two occasions of this virulent flux, without copaiba or cubeb or injections. To his spontaneous testimony I can add much more, which enables me to say, that I never should have recourse to these remedies, because I consider my measures safer and more satisfactory in many other respects. In this complaint, the blood is charged with impurities, for it is mostly ushered in by febrile commotion, by general uneasiness, and by uncomfortable sensations in the limbs,—there is also a dirtiness of complexion; even the hair becomes flaccid, the countenance languid, the eyes dim, the tongue white, and the pulse quicker than natural. Of the local symptoms I need not speak by way of description; the general ones I advert to, because they have not been sufficiently noticed, and because they guided me to the treatment.

I much question whether the simplicity of the treat-

ment will gain for it a single follower, much less the perseverance, regularity, and confidence, that it nevertheless merits. I detail the treatment as a corroboration of the view I entertain of the disorder, not as an *ad captandum* advertisement. For these patients then, I prescribe powdered sulphate of magnesia and powdered acacia-gum dissolved in water, in doses according to age, strength, and other circumstances, to be taken every six hours; and one, two, or three grains of calomel, with three, four, or five of compound scammony powder, and three or four of the extract of henbane, two or three times a week at bed-time. With this plan must the patient proceed steadily, regardless of the free action of the bowels, until all his symptoms abate in intensity, as they will be sure to do, and he may then relax in the treatment. But if, in the meanwhile, he suffers much local pain, he may use an injection of Goulard's wash simply, three or four times a day; he must abstain from wine and beer, observe cleanliness, and live on moderate and simple fare; his beverage may be barley water, milk and water, soda-water, or plain water *ad libitum*. By a steady adherence to this treatment, he, in all probability, will escape the too frequent consequences of the old treatment, namely, a troublesome stricture or a tiresome gleet; and what is, if possible, much worse, a tedious life among quacks. In addition to this, he will perhaps find himself in better health than he had been for many years before. And why? because many other sources of ailment will be removed which are supplied from crowded workshops, close rooms, narrow streets, and a thousand other concomi-

tants of a city life, and which are so many impurities that oppress, depress, and infect the blood.

I cannot, however, quit this subject until I have offered some remarks on the influence of an oxide of mercury upon common lues: it cures the disease,—or rather the constitution of the blood is influenced by it, and in this, its new condition, the fluid is conveyed to its especial destination as a medium for the restoration of the diseased part to health. What can be more satisfactory than to witness an ulcerating, mischief-working sore, of dirty aspect, arrested in its progress, and gradually lessening in extent and virulence, merely from the exhibition of a few grains of blue-pill two, three, or four times a-day! Patients and medical men are scarcely sensible of the force of the fact, or, of the deduction to be drawn from it;—they are not fully attentive to the constitution of the blood, to its nature and determination. The organic structures are perpetually changing; the materials are here to-day, and constitute a fine capillary vessel of exquisite structure, action, and sensibility, of compound structure even, with nerve-fibre as the basis, or first initiatory thread, as it were; and yet they are gone to-morrow, being imperceptibly replaced by others. What a condensation and evaporation! what a crystalization and solution is this! I have gazed upon the aspiring points of an Alpine ridge by Autumn's morning light, and wished for the power of the eagle's wing to take me to their summits, that I might behold the sweet valleys that rest peacefully among them, as if guarded by a race of giants; and I have seen a vapour, incense-like, appear to condense a cloud, a denser substance, with shape and

form, ever varying, ever new. And what a lesson have I learned from a breath so still, that, speaking not, yet whispered a hint on organization, for here, as there, fluid and condensation is the alternating circumstance which effects as much for the body, as do vapour and water for the earth ; order and law prevail in both ; vital in one, physical in the other ; infinitely various in the vital, and infinitely varied in the physical. Did philosophers connect the fact of wear and waste with supply and repair more than they do, they would be more intent on the life by which they live, than on the circumstances which bring about the cessation of their bodily existence ; and by perceiving the laws of the former, they would better know how to protract the period of the latter. In this way would "Physicians for All" secure the confidence of all on legitimate grounds, and bring back a straying community to their fold. In this fold wise lessons may be learned, such as advertisements and puffs and nostrums cannot impart, for here the sciences are mustered for perpetual service, whilst the odds are fearful against those who are seduced from it ; and a "Physician for All" cautions all against "the voice of the charmer charm he never so wisely."

Respecting the efficacy of mercurial remedies in the removal of virulent diseases there can be no question, though attempts have been made to disparage them. In like manner arsenic has its curative virtues and also its enemies : but it, and nothing else, has cured eruptive diseases of thirty and forty years' duration ; to discard this and mercury and other mineral medicinal agents on the ground of their destructive power upon

the animal tissues, is only offering a reason for discarding vegetable medicinal agents also, since these are still more pernicious to the fluids than they are to the tissues of the body. But either ignorance or knavery is at the root of this disparagement; for let it be granted that the mineral poisons are destructive of animal tissue, in granting so much, an explanation is rendered of their *modus operandi*, in that they will act upon morbid as well as upon healthy tissue. Now morbid tissue, it is well known, is not so conservative of itself as is the healthy, consequently the destroying agent falls first upon it, and so rids the economy of its hostile guest; and as in all other cases, when the disorder is healed the remedy is stopped; so in like manner here, when the arsenic has destroyed the squamous efflorescence of euticle or the ulcerating lupus, as it will do, the physician stays his hand; or, when the mercurial remedy has succeeded in healing the constitution, either in its tissue or in its fluid condition, he ceases to administer it according to his discriminating judgment. This reasoning upon just grounds, will apply to all other analogous cases; and I have only to observe, that the instrument which serves to rid the land of its noxious weeds, will also, by bad handling, prove destructive to the green blade of corn; but this is no valid reason for dispensing with its use, but rather for the dismissal of the ignorant workman.

That morbid tissues and secretions should be of weaker conservative power than the healthy is a part of the wisdom of the animal constitution, and a result of the regenerative or healing power which accompanies the formative force, as pointed out at page 8. Nay, it

is one with the great power which is the Conservator of all things, an obstruction to the action of which may be permitted, but woe to that by which it comes an offence, because an obstruction to the will which would work well for all; the woe, the misery, the pain, for these are synonymous, all come of the obstruction, not of the all-beneficent will—this by its wisdom foresees the coming obstruction and its pain, and, of its mercy, provides every remedy against every calamity. From this view of the whole matter, I ventured to observe in my *Six Lectures*, &c. p. 166, “that when obstruction is removed nature returns to her pristine order.”

Mineral remedies are therefore a very valuable class of medicines, and, as a “Physician for All,” I am fulfilling a part of my mission in advocating their utility and commending them to all at their proper times and places, as determined by an honest working faculty.

I will now endeavour to make the above points still clearer for apprehension, by a few observations upon the phenomena that are presented in the constitution of the animal economy by animal poisons. The saliva of the rabid dog has been adverted to already. It is not my object to treat upon any medical or philosophical subject in detail; it will be useful, however, to keep to such as are common-place, especially when they illustrate the more abstruse. The bites and stings of reptiles and insects make sad work with the constitution of the blood: the bite of the rattle-snake produces almost immediately a sense of prostration and debility, then giddiness and swimming of the head, then confusion of thought, languor, and insensibility bordering on a state of sleep: the pulse becomes slower, and the

respiration heavy; the reaction that follows is not that of nervous or muscular power, but simply of the circulation of the blood, with determination to the injured part, and also to the head, in aggravation of its confusion and oppression, so that the patient can scarcely be roused from his lethargic condition. What a rapid infection and taint of blood is this! and what a subtlety of fluid that produces it so suddenly! Chemistry supplies us with chloroform which merely by a few breathings of its vapour takes away sense and motion; here, however, the vapour is spread quickly over a great expanse of the cellular surface of the lungs, when the approximate blood imbibes it, and diffuses it over the entire system; but a small drop of this anguishing fluid, this distillation of the reptile laboratory, no sooner inoculates a drop of blood, than it spreads forth and away to smother sense, and weaken power, and bewilder all the more interior faculties. By what approaches can all this be effected? Can there be secret ways of access to the brain, besides the open ones of arteries by longer circuits? I suspect there are, judging from a number of other facts which I keep in remembrance, and which silently but potently persuade me concerning the existence of a circulation in the animal economy, more universal in its extent, presence, and effects, than is that of red blood in arteries and veins.

And if it be so with blood tainted thus suddenly with impurities of animal origin, and likewise with those of atmospheric origin, the contagious miasmata, for instance, which induce debility coincidentally almost with their introduction, we need not wonder at the minor

effects produced on the constitution of the blood by impurities of a milder kind, working, nevertheless, prejudicially, against health and strength, and causing so much *mal a son aise*, or weariness, with general debility; making up, in short, a great category of nervous complaints, that are too readily ascribed, in modern parlance, merely to a disordered stomach.

Now we read of the employment of antidotes to these death-working poisons of animal production by the untutored Indian. I am not satisfied concerning the existence of these antidotes as a matter of fact, yet I believe in the probability as well as in the possibility of the fact; for, in my appeal to experience in common life, I must adduce the striking effect of the juice of our garden onion, which immediately disperses the consequences of the sting of a wasp or bee;—the acute pain, the throbbing and burning which follow the puncture, are quickly dispelled by the application of the fresh juice to the wound.

A “Physician for All” will not despise small things, nor disdain to learn a lesson from rural life, even at the hands of the cotter’s child; he loves it too well, to forget the high capability of which, as a latent possession it is an inheritor. He has witnessed the noxious insect strike his little victim with remorseless violence, and the stroke of the wound instantly made harmless by a little skill such as sages are ignorant of; for to the remedy the child will go, as the philosopher to experiment, the cry of agony being superseded by the abstracting power of curiosity. The pain ceases in a moment,—and why should not other animal poisons have their antidotes in like manner?

Fluids are here concerned, their natures can oppose, and the blood's constitution be affected correspondently. With reason, therefore, may our best stimulants be applied both outwardly and inwardly, to repress the overpowering virus, and to neutralize it when repressed. To maintain vital power is the object of their administration ; upon this shewing, they admit of trial to a very free extent. Volatile alkali, brandy, ether, turpentine, are the most common and the best for the object ; they are quick in action and make quickly for the blood. Much valuable time was lost to the poor man who received his mortal wound from the Cobra di capello in the Zoological Gardens a few months ago. Brandy with turpentine, or the latter rubbed down in yolk of egg, or both, would be the remedy I should most confide in, in the absence of any specific antidote like what the onion juice proves to be to the wasp's sting.

In the ardour of my youthful studies I imitated the doings of the world's great teachers, those experimenters on living animals ; I put dogs to the hard test, the torturing process which our ignorance alone justifies, but which our vanity and aims at self-distinction too frequently render most condemnatory. From a feeling which was made up both of the laudable and the questionable, I was an experimenter on living animals. I cannot say that I elicited much for science to record, though I will confess to my having received a moral lesson.

I put an adder and a young pointer into a tub to watch their movements ; for several minutes the adder, upon curling itself up, was quiet with its head as the centre of the coil ; the dog was quiet also, not even

attempting to get away, as if instinctively to avoid disturbing the destroyer. Presently the adder raised his head and seemed preparing to strike at the dog, whose eyes were turned in another direction, but no sooner did he look at the reptile, than it drew back, as if to lull all suspicion of danger. I several times repeated this action, by attracting the attention of the dog, the adder the while renewing his preparation for mischief, till with the movement of an instant, his fang was inserted into the skin of the dog's fore leg, where it stuck for a few seconds as if to make the introduction of the poison into the wound more sure. In a short time the animal held up his paw, evidently in great pain, the wounded part began to swell, and in half an hour the swelling extended over the whole limb; at this stage I killed him, for I wished to see the earlier effects of the sting. I then dissected the limb, and found the cellular tissue and all its extensions infiltrated with a clear jelly-like fluid, the cellular surfaces themselves being slightly inflamed, whilst around the wound itself a darker patch was perceptible, as if produced by the escape of a little blood from the surrounding capillary vessels.

From this state of the parts I inferred, that the effusion of the lymph was intended to dilute the poison that was insinuating itself between the cellular surfaces, from whence it would be taken up by the absorbents and veins into the general circulation, to produce more extensive and fatal mischief. A vast field, indeed, of cellular surface exists in, over, and about the organic structures,—it is the great plane where a watery or an oily halitus pours forth from innumerable terminal

arteries to keep distinct and to lubricate every acting or moving organic fibre; without this provision the body would quickly lose its distinctive characteristics, its every minutest part, as well as its every collection of parts, being distinct from every other part, and therefore performing its duty separately from the rest, whilst all are acting collectively under one common bond. The effusions into the cellular tissue, constituting dropsies of various kinds, illustrate and demonstrate my meaning; and more than lubricating service is performed for the general weal by this arrangement, in that the serous fluids are undergoing important changes and preparations for higher conditions to fit them for being re-absorbed into the circulation. In this poisoned state, however, of the fine halitus, every absorbing vessel would seem to close and suspend its functions, whilst every secreting point pours forth its stores more abundantly to repress the hostile invader at the very outworks of the body; hence the accumulated lymph, or the œdema of the limb, as it is technically termed; but I shall return to the reptile inmate of the tub presently.

My next experiment was undertaken to obtain a view of the heart's action, *in situ*: for this purpose I opened the cavity of the chest on one side, and then the pericardium, of a pointer, about three parts grown, a fine active animal; the opening was sufficiently capacious to afford me the sight I wished for, and assuredly, if life, action, and mechanism, are coincident any where, they are a coincidence at this centre, with spontaneity, or seeming independent motion as the great phenomenon. Here animal mechanism was in motion, an involuntary

circumstance, but not a spasm; for alternation and rythm were the mode and measure of the motion; the mode constant, but the measure indeterminate.

Alternation of the action of the auricles and ventricles was clearly perceptible, but the times of it were constantly varying, constituting an irregular pulse: and well might the pulse be irregular in this case, for half the breathing force was wanting,—life's breath was lowered, its gale was almost down, the sails were fluttering and not full; the heart palpitated through sudden weakness, the breathing being oppressed by the collapse of lung and by pressure of the air in a wrong direction. The wheels of this living mechanism were being forced into a direction that pertains only to foetal and subaqueous life, but for which the heart was now no longer fitted, so that though it moved, yet it lacked the requisite force and power to animate its dependent body, and thence of its own flaccidity the poor animal itself lay prostrate, labouring for breath, panting to live, attempting at struggles not to die. And I was the cause of this to a creature that a few minutes before was reposing all confidence in me;—the young cold philosopher all of a sudden turned moralist! The dog was lying flat on its side as if resigned to its fate. I whistled to arouse, as well as to measure, its sensibility, and, as if to awaken me to my own sensibilities, he raised his ears, opened his placid eyes, and wagged his tail merrily! The circumstances are as fresh in my memory as if they had happened only yesterday. I ceased to experiment on living animals, resolved to learn no more in such a school, and to relinquish the race for distinction in such a game.

The moral lesson comes from the contrast between the nature of the dog and that of the adder—for the adder inflicted a deadly wound on its harmless companion by stealthy action;—whereas the dog under his deadly wound smiled, in his way, on him who had inflicted it. If this were not forgiveness, it was an entire absence of revenge or reproach, and therefore a portraiture of forgiveness for human nature to gaze upon and imitate; and for which there is the full sanction and requirement of all-wise revelation.

I have often reflected on the event, nor has a like one been forgotten by a brother "Physician for All," who was experimenting on a dog and putting it to great pain, when a noise at the door set him barking to warn his questionable friends of danger, or to keep intruders away from them. But who can receive injuries and not resent them like unto these animals? or, who can incur harm without a rising of the resentment that renders the injunction to forgive so necessary? Can old human nature? No! the blood of our old nature will boil at injuries, whether real or imaginary; or will even incite to the infliction of wounds, out of sheer malevolence, like the adder, and without provocation, or with cool philosophic spirit promptly injuriously for selfish ends, howsoever mischievous to the welfare of another the injury may be. But it is well that a countervailing force is at work to heal such wounds as are inflicted, by philosophy that is destitute of the forgiving spirit which would sweeten the bitter cup of this world's life; of this philosophy indeed, the world has had too much; clever and knowing and scientific and intellectual as it may be.

And a "Physician for All" would inculcate the spirit of forgiveness with the spirit of knowledge for *bodily* as well as for mental welfare. Nor is it a breach either of one spirit or of the other, to warn the body social against a poison that issues ever from the lip of disparagement and accusation to disturb its comfort and its peace. In mitigation of the sting of this offence the outpourings of a better nature scarcely avail, though caution on all hands can act a part favourable to the introduction of the much-needed antidote.

The knowledge that has been attained of the poisons and of their effects upon the animal economy by their vitiation of the constitution of the blood, quite justifies the experiments that have been made upon living animals. And though new investigations are sure to arise, yet accidents and diseases in their varied forms can furnish many points for observation and research, touching the working economy of our being, to render such experiments less frequent and necessary.

Whilst on the subject of poisons, I am strongly reminded of the liability of the anatomical student to being poisoned by the bad fluids that are engendered in the dead as well as in the living body. A scratch or a puncture is enough for the inroad of such fluids into the blood—truly my own blood, as to its every globule, swells at the remembrance of the danger which the young man encounters in his acquirement of the knowledge that is requisite for being constituted a medical man such as the laws of the realm demand.—What industry, what zeal, what talent have I witnessed in a little army of combatants against the innumerable hosts of assailants upon health! a forlorn hope almost

have they severally and at sundry times formed, according to rising exigencies! and what reward do they meet with? with the exception of a few prizes, the rest have but a sorry lot and a poor pittance! This circumstance is, as it were, one of the letters of the awful words on the wall of the great temple in which this world's feast is holden; for, if its king is found wanting in any thing, it is in remuneration for service. Wealth is this great king, and the homage that is paid to it, is the great sin which repeats the letters on and on to the completion of the sentence. A "Physician for All" may see the sentence every where, hear it every where, and feel it every where, and knowledge, prophet-like, in the exercise of its higher prerogative can light it up for all mankind to read. For wealth, as compared with knowledge, fails to produce the happiness for which power, as the aim of both, is eminently responsible—whilst knowledge in its wider compass is as the garb of truth, or as the mantle of almighty wisdom. It is ever changing, indeed, and as a vesture of yesterday it is not suited for to-day, though mean avarice would have it otherwise, and defile it by its selfishness. But the knowledge which is acquired from the nature that all other nature works for, even from the human, is so close to the body of truth that it throws all other knowledge into the shade in the comparison. I call human nature, as it exists in connexion with its framework, *a body of truth*, because each part of it is true to every other part, and thus displays not only the consisteney which constitutes unity, but the order, which, as the sign of truth, in plan-subordinate, maintains the whole co-

ordinately.* Such a consistent body is the groundwork of the knowledge that is acquired by the medical student. Our medical schools, indeed, have done more on this account for the cause of science, than did the schools of the ancient Sophi for the cause of philosophy. Our universities perpetuated the latter, but it is almost within my own day that they have most reluctantly yielded to the greater power of experimental knowledge. Students in experimental philosophy, in anatomy, physiology, chemistry, botany, medicine and surgery, have been for the last half century, issuing forth as bees from a rich hive; they, in unison with other scientific institutions, have given a new aspect and turn to every economic art, and even to every industrial pursuit; their knowledge is as wealth diffused, to circulate for the good, and not for the corruption, of all. And for this, the public requites them badly; the state doles them out no patronage, and the throne but scanty honour. No wonder that the froward and noisy ones of their ranks scramble and even scuffle for some distinction, nor that others with higher pretensions should be grieved at seeing the faculty degraded by the scramble, and unjustly made to justify the slight.

But anatomical knowledge is only to be acquired at much inconvenience and hazard, and in reference to this subject I must remark, that not a few of my personal friends have fallen victims to the consequences of the slight wounds they have had poisoned by a volume of virus sufficient to taint the blood of a

* See the *Six Lectures*, p. 203.

multitude of people. Conceive a body of it, weighing some fourteen stone or more, an undiluted particle of which is all that is necessary to kill a man, and what a mass of corruption for living men to remove out of harm's way does it not at once appear! Twice have I had such poison in my own veins; twice have I endured a season of desolateness and anguish, such as merely bodily suffering can never equal. Courage made me conceal my apprehensions, even as the strength of my constitution contended with its fell enemy; for my thoughts of a wife and many children, and of parents who centered in me their heartiest hopes, and who devoted their worldly goods to keep me in the path of knowledge, harassed my soul's rest in apprehension of the distress to befall them. My reader has, doubtless, read the case of the Ruined Merchant, so touchingly portrayed in the "*Diary of a late Physician.*" That merchant was my patient, and almost the cause of my death; for in my anxiety to know the seat and nature of his obscure and fatal disease, I undertook the necessary dissection, and sustained an injury to the extent of a swollen and acutely pained hand, shoulder and breast, which but for timely caution, supporting medicine and diet, a good constitution, and immediate departure from London, would have ended in a huge abscess, and subsequent disfiguration of the limb, if not in death. To the victims of these poisoned wounds, of this horrid nature, a "Physician for All" imperatively advises immediate and total change of air,—yes! immediate, not letting a night pass,—cauterizing the puncture and the

adjacent parts freely ; to take no lowering nor purgative medicine, but tincture of bark and hartshorn, or quinine dissolved in camphor-water, or in port-wine ; to live on nutritious food, with two or three glasses of wine every four or five hours. Support of the powers of the body is the best antidote here, for then there is time for the dilution of the virus ; and were it possible to dilute this virus as it oozes from the exposed surfaces of the corpse, I believe the virus would lose its poisoning quality ; I, therefore, would suggest the employment, whilst such autopsies are proceeding, of hot water, by pouring it frequently on the recently cut surfaces, in order to lessen the chances of injury occurring to the operator.

I cannot forget the case of a young man in this metropolis, who not long since was a guest at my table, with his much-respected uncle, a brother physician, and who had been examining a body in the morning of the same day and punctured himself ; he felt nothing then, but I urged him to take every precaution, and wished him to sleep out of town ; but the necessary precautions were not observed in the particulars I suggested, and in spite of much combined skill, his memory, with his marble bust, are all that remain of the student of promise for the solace of his afflicted relatives.

The period of non-action of the imbibed virus in these cases, is a characteristic somewhat similar to what occurs in the bite of the mad dog, or to what is seen in the action of the miasmata—the poison is dormant for a longer or shorter interval. The introduction of effluvia from eruptive diseases also, as from measles, small pox, scarlet fever, ring worm, &c., gives a period

of seeming inaction, but the constitution of the blood is undergoing a series of changes, which manifest themselves in the organic structures as specific effects from their specific causes. Fermentation, concoction, and other terms, fail to express the changing process; inoculation, infection, contagion, are scarcely more expressive; whilst re-constitution approaches nearer to the condition of things, seeing that these disorders, after passing through their stages of development and decline, but seldom reappear, as do gout and rheumatism, and many other forms of inflammation and of fever.

In the management of these affections I am most decidedly in favour of supporting the powers of the system through the period of the conflict; and for this purpose ammonia, and sometimes quinine, or the milder aromatics, are the most beneficial. Purgatives should follow and not precede or accompany the developing stages of these complaints; if they are employed it should be in the mildest form to rid the bowels of fæcal accumulation. Were this the general rule of practice, I believe the early fatality of scarlatina that we meet with, would not be so frequent. Well fed or well supported children, moreover, undergo these disorders, as a general rule, better than do the weaklings, that are reared by the hand of opinionated starving mothers, who convert the dinner table into a board of daily privation and torture, or the daily bread for social enjoyment into a meal of terrors. A puny delicate stock come of such fastidious observances, as of a perpetual fast, and a "Physician for All," would say to such mothers, feed your children more generously, let them be happy in-

creasingly with the filling stomach, to supplant the pcevishness of emptiness, and to digest the well-relished aliment into blood of a quality more fitted to moderate, if not to repress and resist, the changes which it is liable to by virtue of its original nature and hereditary constitution. In growing years the evil of excess is less than that of scantiness; especially if the nutriment is simple, and the spirits kept cheerful and are not tormented. But a judicious and well principled mother or governess will soon make an obedient, orderly, and temperate family in all things, to become the pride of a nation, and a little seminary of heaven. Such a mother starts her offspring well from the cradle and hearth to the altar; her work is in and upon the hearts of her children, and it is for a discreet and honest father to bring out its fruits for their mutual delight and satisfaction.

Having adverted to the disorders of the constitution of the blood, which are attributable to external circumstances as to external causes, working upon its suecptibility of nature, or upon its common liability, as so many considerations modifying the judgment, and determining the course of action of a "Physician for All." It now devolves upon me to speak of those affections of the constitution of the blood, which are included in the technical term "diathesis." It is a term that is used to express the conditions which are designated serofulous, gouty, rheumatic, cancerous, tubercular, and the like. These conditions are so many characteristics of distinction between one constitution and another, though they admit of being blended more or less together in the same subject, and thence producing endless modifications,

such as no nosology can embrace for practical guidance. What a sea is this for the specialist to navigate? What an ocean for the pastime of the would-be Leviathan of homœopathy! What depths for the quack to sound! Rudder and compass, sextant and quadrant, with experience to handle them, and a ship well freighted with appliances of every sort from the great continent of *Materia Medica*, can alone answer to the many demands of a mixed multitude of these disorders, subjected as they are, nevertheless, too frequently to the skill of this or that ignorant and presumptuous charlatan. What can justify our legislature in withholding scrutiny and examination from this favoured few? Have they a letter of marque for capture and prize of every flag, and do they pay so well for the license, that it is expedient to foster licentiousness? Scrofula, cancer, tubercle, gout, rheumatism, insanity, ulcer, and fungus, are not the legitimate property of the unqualified of society, nor are their subjects disqualified by law for proper protection. In denouncing this unchecked evil in our social system, self interest may be laid to our charge; but is it for nothing that the charlatan plies his oar or spreads his sail? has he no selfish views in the exercise of his craft? or, is there no injustice in his ransacking a pharmacopœia, sanctioned by law and issuing from the hands of qualified industry, for his own good irresponsibly?

These constitutional affections and hereditary taints are, however, not the single visitations of a lifetime, as are measles, hooping-cough, &c., but they come and go, and persist with all the uncertainty of a skirmishing army. Seasons and climates favour or repel them;

skill and tact are too frequently baffled by them, and even were a measure propounded of countervailing and moderating efficacy, yet so long a period would be necessary to establish it, that prejudice would be at an advantage in frustrating its otherwise satisfactory success. Such a measure can only be the production of a well founded theory, and not the work of a day; it must come by the confluence of positive scientific facts towards one point, and when within our grasp, it requires careful handling instead of rude treatment. I have essayed a measure of this kind, and incurred bad as well as good report; the sneer and the doubt as a consequence; but still the "*liquid condiment*" is not now "a nine days wonder," but a nine years existence; and justifies the encomium of a learned barrister, who, quoting from a well known line in Horace, substitutes "*condimentum*" for "*monumentum*" as a compliment to his doctor.

I am now speaking more especially concerning gout and rheumatism, with which I will even associate indigestion, as an inherited as well as an acquired ailment; a taint of blood is here, and the secretions necessary for digestion, as a process in blood-making, are tainted also. An acid is the predominant vice, the ruling tendency; the acid may have the appellation of lithic, or uric, or hippuric, or phosphoric, or malic! Acid is the quality for the most part, and when engendered, it goes the round of tainted blood, tainted secretions, tainted chyle, tainted serum, back to tainted blood, till this is a very saturation of defiled elements,—a full charge of gouty flashes and rheumatic burnings—which a slight nervous disturbance, or a night's debauch, or a trifling error in

diet, or a gentle kick of the great toe, or a pinching boot, will precipitate to denser structures, in form and fulness,—an attack of unmistakeable gout, or of rheumatic fever, or, of a mixture of both, to torment the little world of man.

Now viewing the whole matter in this light, it occurred to me to prepare a liquid which should neutralize this acid fruit of our sour economy by beginning with our fluid ingesta, to which it might be added at every meal, and for every draught. In my experience, I have seen large glandular swellings give way to considerable doses of a free alkali in the form of the liquor potassæ. I have seen a patient whose urine was charged with lithic acid, yielding no more upon the administration of this article; I have known it in large doses proving a mild laxative (without injury to the coats of the stomach and bowels that thoughtless people talk about); and I selected it as a promising ingredient for a liquid condiment. I have read many treatises on the influence of certain salts upon the blood, from Gulielmus and Leeuwenhoek onward to a modern date, and all bearing testimony to the value of common salt, as well as to its presence universally as a constituent part of the blood. I reflected on its daily introduction into our stomachs with every mouthful of solid food, as well as into every article of culinary preparation; I brought to my mind its reduction of glandular swellings as a test of its power; I reflected on all the beneficial influences derived from salt-water baths and frictions, in its heated as well as in its cold state; likewise on the interesting circumstances connected with the fondness of animals for salt, as if in obedience to a necessity they instinctively feel in

order to cleanse and recruit their blood. I thought of the migration of salmon; of the fondness of pigeons for the article, insomuch as to have given rise to a legal enactment against its use in the dovecot. I considered the preservative power for which it is noted; the vast store of it in ocean's wide expanse, as if the islands and continents of the globe were bathed in it—not disregarding its high application in scripture wisdom. All these considerations pressed upon my mind to make it an ingredient in my liquid condiment also. Nor did I forget the fact of the black surface of bad blood drawn from a sickly body, being brightened again, on sprinkling a solution of salt over it, manifesting as it does, a homogeneity of nature, so to speak, between the two, a freshening up of the one by the savour of the other. Its chemical composition, moreover, being so favourable to the multitudinous requirements of the vital and formative agencies that are ever at work in the body, supplies an unequivocal reason for the necessity of its presence to constitute healthy blood. Furthermore I thought of phosphoric acid and of phosphate of lime and soda as important constituents of the animal fabric, and so added a little phosphate of soda to the compound, and then, by filtration of the solution of these ingredients in water, through a bed of calcined magnesia, I produced the article which is now known as the "Liquid Condiment." It mixes with almost every liquid in common use; it may be put into the tea pot with the tea, or added to every cup of tea and every cup of coffee, to every glass of beer or water, or brandy and water, or wine and water, and taken in this way it realizes the several objects I contemplated at the outset.

These objects embrace the correction of the acids it meets with in the stomach and bowels; the prevention of their formation; the neutralization of the acrimony of bad bile; the supply of the serum of the blood with saline aliment, to render useful service there as well as to the secretions coming forth from the blood; the counteraction of irritating matters to be met with in the alimentary canal, or, in the general system, and which, if not neutralized, will fret nerves and brain, and every other part of the body, and this to the destruction of the mind's peace, or to the production of disquietude and anxiety, or the hypochondriasis which waits on indigestion. The liquid condiment, in short, performs a very efficient part towards the removal of a faulty digestion; as also in the improvement of the animal spirits, and in tranquilizing the feelings. To these circumstances severally and collectively, I can speak in full corroboration from my own experience, and I can also appeal to the experience of many persons who have derived the most decided benefit from its daily use, so that it is now established in a portion of the community of its own merits, and not of puffing laudation or advertising mystery.

With these several properties and positive virtues the "liquid condiment" essays the counteraction of the consequences of the gouty, the rheumatic, and other diatheses; such consequences advancing, for the most part, to the production of an unnatural amount of impurities, with prominently acid characteristics for their common nature. Surely such diathesis or tendency cannot but be considered morbid; it is a persistent circumstance, and I am the first to essay a persistent remedy to meet it.

If I am not understood in this, my attempt, it is to be regretted, because the efficacy of the means I have propounded, upon the best basis I could find, cannot meet with that general trial which would establish it upon the better basis of general experience. To the subjects of gout and rheumatism then, more especially, I commend the "liquid condiment" in substitution of colchicum and certain of its preparations, which, although they sometimes succeed marvellously in mitigating the severity of suffering, yet prove extremely hazardous by reason of their noxious effects upon the system in other respects.

In other unhealthy states of the body, again, as during the nausea and thirst attendant upon various febrile commotions, a teaspoonful of the Condiment added to a tumbler of cold water supplies a very useful and refreshing beverage. In diarrhœa also, it will vie with sulphuric acid, and prove more generally admissible; it allows of the addition of laudanum and brandy according to specific requirement, in which combination I have seen many severe cases yield quickly to its administration. Errors in diet are also speedily corrected by it when they are proceeding to the production of cramps and spasms and other perplexities of the stomach and bowels. In this way the article might, if it were in more general use, tend to the counteraction of the invasion of Asiatic Cholera in various instances, especially as such errors are very frequently an initiatory circumstance in its attack upon many individuals. But irrespective of these considerations the saline treatment of cholera has many advocates. This Condiment contains the requisite salts for the benefit of the blood, as a counteragent to the

conditions that preeede and accompany this blue-visaged monitor of death. It admits of being administered with water in alleviation of the thirst so distressing to the cholera patient. The exception to its use is so rare an occurrence, that to advance it as a general objection, would make the honesty of the objector questionable, and his ignorance positive. The whole question is based on science, and can be confirmed by experience. It is unsullied by the selfishness of personal interest.

The medical profession, as yet, has paid but little attention to the article, though by its preparation under its own auspices, it might work well in counteraction of the vastating disorders of the East, and of hot climates in general, either as a prophylactic, or as a remedy for the occasion. It should be on every table for every beverage; it has been professed as a weapon to every doctor's hand, to exterminate the offspring of intrusion and illegitimacy: but doctors are frequently spoken of as a very odd class of the community, as talking about unity, whilst they are most disunited; as civil to each other in society, and jealous of each other, when out of it; as standing by and for themselves individually, and therefore weak when essaying public influence. No wonder that the legislature finds them a difficult body to work for; especially when so many of its members betray an inkling for leadership. Would that with their treasures of knowledge, their deeply penetrating skill, and their amazing industry, they possessed that true *esprit de cœur* which foregoes selfishness to realize greater ends, by regarding the interests of their brethren as much as they do their own. In their vocation, exclusion and individuality keep the knot of union

untied,—the band of fellowship an iron chain instead of a golden girdle.

“Time is short and art long,” was the first aphorism of Hippocrates; art is not so slow in this as in his day, nor so long in being acquired; and yet there is every reason to believe that a fever would be as long in hand now as at that time, for twenty-one and twenty-eight days still constitute the duration of some fevers, and the like observation applies to many other disorders. In this way art is long, but medical appliances are vastly improved when contrasted with those at the command of the Physician of Cos.

In proof of which I will refer to a case of rheumatism, in association with other complaints, induced by the climate and the hardships to which our military heroes are now exposed. In cases of this nature, indeed, art will now shew itself more efficacious for their cure, both as to the time and to the measures employed. Whilst arranging these pages for the press a young officer from the Crimea was recommended to consult me, under circumstances of great suffering. He was sent home in a shattered condition: the stiffness and feebleness of age having taken the place of the activity and buoyancy of youth. Severe pains in his back, thighs, knees, shoulders, and wrists, would suddenly assail him; coming on and abating with the manner of a remittent fever, or, sometimes, with that of an intermittent, under both which forms he had been suffering in that remorseless region of war and privation, of disease and exhaustion. When his pains were on, the joints were also tender to the touch; but the pain ceasing, the tenderness ceased also. His appetite was

gone, his digestion bad, insomuch that his abdomen swelled most uncomfortably after taking his meals, however simple they might be; his eyes and complexion were sallow; his liver tender on pressure; his secretions were of varying and unnatural appearance; his tongue was furred; his pulse was hard and of small volume,—not quick however, the circulation of the blood being languid and deficient at his extremities. He had taken mercurial remedies, which he thought injurious; he could not say that any thing had done him good but change of air; but the fear of this state remaining long upon him distressed him very much. I prescribed as follows:

Two scruples of the iodide of potass, and ten grains of the hydrochlorate of morphia, with an ounce and a half of the spermaceti ointment,—as an ointment.

Sixteen grains of iodide of potass, an ounce and a half of concentrated syrup of sarsaparilla, and half an ounce of syrup of poppies,—as a mixture.

Powdered rhubarb, compound colocynt pill, extract of dandelion, and castile soap, of each two grains,—to be made into two pills.

The ointment was directed to be rubbed in wherever and whenever he was assailed with pain.

The pills were to be taken every night; of the mixture two teaspoonsful were to be stirred in a wine-glass full of water, and taken three or four times a day; and half a seidlitz powder, every morning, in luke-warm water. I saw him, for the first time, on Tuesday, the 16th of January. The same afternoon he was making his way to visit his friends in the country: they lived three miles from the railway-station: he could get no

conveyance for this distance. He essayed to walk it, but broke down, and was obliged to send on to his friends for assistance. I had put him into good heart. He commenced my plan of treatment with full confidence, and on the Monday following he received my instructions to continue the same plan for another week; he took leave with a few parting words, saying, "I shall feel it my duty to recommend any fellow-sufferers I may meet with from the Crimea, to consult you; for I could not imagine I should receive so much relief in so short a time." The facts now were, secretions nearly natural, pains in his back and limbs much reduced in frequency and intensity; his actions freer and easier to himself; appetite and relish for food had returned; his eyes and complexion were much clearer; and his expression of countenance was happier. The hero was spared the teasing processes so much in vogue of water-testing, chest-pummelling, and I know not what besides, which are the opposite extreme of the one-remedy doctors. I have submitted the prescription for the observation of my readers, and for their analysis. I remarked to him, that I adhere to no set plan of cure for every case, but treat each case according to the modifying indications that it may present. Every symptom in the case I referred to some unhealthy condition of the patient's blood, whether affecting its constitution or its determination; thus, if the joints, or cartilages, or muscles, or bones are seized with pain, it is owing to sharp acrid constituents present in the blood, which must be expelled or neutralized, or both. Medicines accomplish these objects; and when they are prescribed according to a well-tryed philosophy, and a due measure of honest

experience, they will banish the arts which, like parasites, impoverish the roots, stem, and branches of the profession to which they especially pertain.

But to return to the subject of the "liquid condiment." It will take a long time to lessen the frequency of the attacks of gout in the same person, or their intensity, and especially to determine the fact satisfactorily to every mind; nevertheless, the attempt is laudable on the side of the medical practitioner and not absurd on the part of the gouty individual. To this end I should advise the steady persistence in the use of the Condiment by the person so circumstanced; no recourse to it by fits and starts will answer the purpose intended, any more than would feeding by the same rule, answer the purposes of nutrition—a persistent enemy must be met by a like opposition, for otherwise defence and safety must be frustrated, and I therefore address myself to gouty and rheumatic people, and to such as are the subjects of indigestion. I want no bad experimenters in this field of investigation; the failure of experiment in such hands is a result to be lamented, because the fault is with the person and not the thing, and to this cause also may be ascribed the tardy progress of rising art. Would, however, that this were the only cause of its retardation; were it not for necessity, the selfishness of man would stop all progress. To necessity our very respiration may be ascribed; to necessity we are indebted for the bread we eat and the bed we rest upon. No wonder, then, that prejudice, as the first fruit of selfishness, should be overruled by necessity, when necessity overrules selfishness. Prejudice would have buried the arts and sciences long ago, even

as it would have put out their fires and torches ; it tried its hand at the heavenly knowledge of astronomy ; it puffed at steam and laughed at gas. It lurked in the deep shades of religion, got entangled in its difficulties, and became powerless in the view of its more comprehensive truths. To those, therefore, whom prejudice enslaves, a " Physician for All " should recommend the test-paper that detects an acid re-action ; and then prescribe an alkaline condiment, as the remedy ; for a disparaging soul and sour bowels are almost synonymous.

Very serious impairments of the constitution of the blood are also manifested by the innumerable phenomena of insanity. That these disorders run in the blood is unquestionable ; that they thus arise spontaneously, as it were, as well as from a multitude of exciting causes irrespective of hereditary constitution is but too obvious ; but when tendency and exciting causes co-operate, it is almost a certainty that the insane state will set in and prove extremely obnoxious to management. Would that the tendency admitted of medical remedy in like manner as does the predisposition to gout and rheumatism ; doubtless a close observance of the rules on which general health depends, will lessen the force of predisposition, if not postpone, moderate, or avert its appearance. Moral and educational considerations should also be operative from a very early age,—even the pursuits entered upon for future weal ought to have respect to the liability that exists, though I believe this precaution has never been fully taken advantage of ;—possibly the frequency of insanity, not only in families but in the community, would be lessened, were such

precautions boldly and resolutely acted upon. On this matter every delicacy of feeling might be respected, simply by consultation with the judicious medical friend of the family.

To lessen the force of the tendency, and to diminish the frequency of occurrence of these disorders, in any of their forms, would be great achievements, and lead the way perhaps, in some instances, to their eradication, more especially as there are strong grounds for believing that this tendency is not so adherent to the constitution of a family as is that which engenders gout, consumption, or scrophula. My reasons for so thinking are derived from a consideration of the nature of the cerebral functions themselves, which, relatively to the rest of the bodily functions, are controlling, or governing and predominant in their general characteristics; their regenerating or healing power is strong,—the organization itself is more exalted and perfect, and the ends and uses regarded and performed respectively by its instrumentality are of indefinite extent and variety; witness but the productions of man covering the face of the globe as they do with signs of his intelligent presence. But stupendous as is the cerebral organization in regard to its form and its uses, it is powerless without the presence of the blood. A great physiologist of the modern school was once asked by one of a large dinner-party, at which I was also a guest, whether he thought the soul was seated in the brain. “No,” he replied, “I have dissected many brains in my time and I could not find any difference between a living and a dead brain.” Upon which I remarked, “Well, I see the greatest difference

between them.” “What can that be, doctor?” said Sir A. “Why, in the living brain, blood is circulating, and in the dead brain it is not.” This physiologist’s mind was more intent on structure or organization than upon that to which it is subservient. The principal cause, or blood, and the instrumental cause, or organization, are simultaneous in action or use. Life, force, influence, and tendency, are predicable of the one; vitality, mobility, sensibility, and reaction, of the other. No wonder, therefore, that affections and modifications of the first in order should affect and modify the other, nor that the affections and modifications of the latter should exhibit its vitality reactively, and thence evince the functions of mobility and sensibility according to its forms and states. In this way conscious life and power may be seen to be essentially reaction in contradistinction to action, and, therefore, receptive and not communicative, *per se*; to be, in short, life under a derivative form as distinguished from what is self-existent: and assuredly this is a vast possession, judging from the infinite communications of which our consciousness is receptive, both from within and from without,—from the world of reflective thought and from that of direct impression. It is the blood, therefore, that is the vicegerent of essential life in the body,—it owes this its delegated function to its nature, to its constitution, to its fluidity, determination or circulation, and so forth,—upon the right condition of which, separately and collectively, the well-being of the body depends, as has been abundantly demonstrated above.*

* See also *Six Lectures*, *passim*.

What a fluidity, for example, does the blood possess as one of its essential properties, compounded as it is of most gross matters, or of such as will coagulate to fleshy compactness,—a fluidity that enables it to traverse the finest capillary vessels and the innumerable nerve-tubes, those gossamer-threads, as it were, of nature's finest whoof, which animate and vibrate in accord with volition and thought, or which, when themselves out of accord, discordantly thrill and jar an insane jargon upon healthier and sounder senses. Such a blood-spirit, as it may be termed, by such subtle media is every where present, every where cognizant, every where provident in its appended body, and seals its own fates there as the record of its rights, and powers, and inheritance, of which memory, habit, and liberty are the proofs; the conditions of the compact being order, subordination, and unremitting service. For as I have already said, touch where you will with the finest needle's point, and the contact is, in universal soundness, a universal sense of an impression,—call it a reflex action, or what you will,—this blood-spirit conveys with the lightning's speed the fulness of the impression, whilst its continent fibre determines its course, its limit, and its play.

This blood-spirit, moreover, seeks a lower and a lower presence in heavier materials, such as compound the colourless and the coloured, the glistening white and the brightening scarlet fluid for arterial distribution and determination. Now, however, in this its new condition it moves along with pulsatory undulation, its current is but by impulsive jets from the heart's alternate throbs, laden as it is with a weight of matter that can be moved only by a force compounded for the pur-

pose, or by muscle largely fibrated and most wonderfully contorted for the all-incumbent effort.

This blood-spirit being universal in the body in its containing fibre, merits the name of *nerve-blood* also; and being the very essential cause of the fluidity of the red blood, and, indeed, of its every other property, modifies it by its own states, and is itself affected by the constitution and condition of the compound volume, so that the whole organism takes on a correspondent state for health or for disease, for soundness or unsoundness, in incalculable variety. In the latter respect, therefore, the body alternates between the extremes of heat and cold, of strength and weakness, of consciousness and lethargy, of mobility and paralysis, that are compatible with life: in the former respect, it enjoys that happy mean, or tranquil equilibrium, whereby it lives in repose and reposes in its life. To this end does the blood-spirit ever press, even as the forces and matters of the earth press and gravitate to a centre of rest: but since disturbing causes of all kinds and degrees impair such healthful tendency, no wonder that a host of them exist which invade the higher domains of organic action, the cerebral structures to wit, and thence give origin to a class of insanities which persist with painful tenacity or with eccentric vagary, exhibiting human nature the while in its wildest distortion and mad derangement.

But as I have seen madness in its wildest moods, and insanity in its most absurd wanderings, usurping empire over the will and the understanding respectively, yielding nevertheless to healthful influences and wise appliances, I assert for our nature a recuperative power in

these more eminent respects also of great force, and of cheering power to console us even in the face of our saddest aspects; in proof of which I have but to adduce the results in general of the new, the milder, the more merciful treatment of these disorders under all their types,—a boon vouchsafed to the generation that is turning to the summer solstice, or lending an ear to Sol rather than to Æolus. And what can we sufficiently urge in praise of the men who were the first to approach close enough to the dreaded monster to knock away the bolt that fastened him to the wall? The vault of heaven re-echoes to the praising voice, and the darkest places of the earth extinguish it not; for within the distorted and the deranged image of humanity its better nature is reigning still, and can come forth as from among its tombs at the command of merciful and wise behests. Even medicines favour the desired issue, for I have prescribed in desperate cases and succeeded in the restoration to reason of the maniac's mind. I have seen a middle aged female fastened by a chain to an oak-chair which was stapled to the wall, curled up like a dog and in a condition like to that of a dog in every respect, and on the fourth day afterwards demeaning herself peacefully with her fellow-inmates of an asylum, feeding herself from a wooden platter, and waiting her opportunity to thank me for what I had done. The poor woman was threatened with an attack of cholera, and thereupon had administered to her, by my direction, thirty grains of calomel at one dose; it operated effectually, and demonstrated to my mind the correctness of my views in regard to the inefficient medical management of a multitude of these cases. The treatment, as hither-

to adopted, is not in my opinion commensurate with the intensity of the disorder. It is to these ailments what Homœopathy is to a multitude of other complaints. The Physician, who would be so "for all" is a *rara avis* in these times. Every one professing to be a Physician is compelled to be more or less a specialist; and being so, he comments upon the conduct of his fraternity in their several specialities,—he judges upon it from his own circumscribed views and condemns it unjustly. In this state of things no one feels free, his responsibilities are placed upon false grounds, and he, therefore, holds out the hand of service short of the extent of the peril, and of the benefit to which it might act. The treatment, moreover, is commenced under the guidance of symptoms rather than of such principles as would render symptoms symbolic and significative: thus for a spasm an antispasmodic may be administered, when a foul stomach and bowels, or even impurities in the blood, are requiring correction or dilution to dissolve the spasm. As an instance of the latter condition, I was once called to see a little girl, in the country, who was screaming from the highest point of irritability. An active dance of St. Vitus keeping up to the excitement of every passing and trifling incident was more the condition of her body than any thing else:—no sleep for nights and days; no peace, no rest. I watched her movements; I perceived a dryness of mouth,—a desire to raise every thing that was cold to it:—and I ordered a large jug of cold water to be placed, as if accidentally, on the table within her reach. I enjoined, also, that no notice should be taken of her actions; and presently she was quiet,—she took up the jug and drank off as much of the liquid as she could

possibly swallow. In a quarter of an hour she was sleeping a sleep that lasted for many hours. She awoke to yield to the simple management required; and she is now a beautiful young woman, and not an inmate of a mad-house, as she might have been, as the result of an over-irritated brain.

The case of the maniacal woman would appear to have depended upon a foul condition of the stomach and bowels, and perhaps of her blood also: but the besom of purgation will not sweep away all impurities, nor every form of madness. The widest extent of experience, the highest philosophy, the most merciful disposition for the Physician's mission, are the great requisites to qualify for the management and cure of the insane. Here, no specifics are of avail: the depths of Homœopathy are too shallow for its cargoes of globules to float in to bring succour for the afflicted. Here, the exaggerating tongue of quackery is silent; it is dumb in the mad-house and paralysed in the presence of the palsied will and tottering understanding. It is ever talking big and loud among fools: but it would be profitless to work upon the credulity of the insane, and, therefore, in its selfishness, it leaves them to the kindlier and the wiser sons of humanity.

Not unfrequently have I witnessed the distempered brain attempting at self-destruction, and a partially cut throat, or an inefficient poison, or a breaking cord, or a failing bullet, or a scatheless leap from an attic to the ground, or a determined immersion; followed by recovery of reason and sense of folly. All these effects of morbid impulses might have been, and would have been averted by judicious medical treatment. Let but a

“Physician for All” have his opportunity, and he will bleed, leech, cup, blister, purge, sweat, emulge, cool down, or warm up, soothe or excite, tranquillize or arouse, console or check, according to his judgment, and according to indications. Whereas, if the public confine his views and his efforts alike, by meddling and ignorant comments upon his modes of practice, mad-houses will increase, unions also; and it will be in vain for the clergy to preach. A morbidly feverish excitement will supervene upon the loss of the doctor’s authority, such as a change of doctors will never subdue, and with this an opinionative turn of mind will prevail even to turning a great nation into a community of wrangling disputants. A “Physician for All” has his mission in visiting the sick, but errors in diet and their consequences are not his exclusive theme, for he has boldly to essay the casting out errors in thought and practice in the mental constitution, or in the social field more especially. But when a community regards him and his fraternity lightly or slightingly, it is a mark of pride, a sign of radical ignorance, a proof of cracks and flaws in high places which admit the inroad of flimsy speculations, and of table-turning and table-rapping, into the field of sober realities, on the pleas of radical improvement and innocent amusement.

A statesman has said, from his high place in the House of the Peers of this great realm, that, in returning thanks to the conquerors in battle, precedent did not sanction the proffer of them to “such men” as form the medical profession! Of “such men.” Let that nobleman shew me greater men or men of greater nobility than these. He cannot. *Prestige* has

done its worst for them, and yet they have wrought noble deeds, which neither ribands, nor garters, nor titles can render more illustrious. A qualified expression of a nation's gratitude they accept, however, at its hands, as an earnest of better things to come ; but the magnates of the profession itself must themselves do more for the profession than they do, if they would bring the badges of honour down from the throne to the meritorious of its ranks.

If measures of government, or of policy, or of social life, are not insane, they may, nevertheless, be unsound or unwise, and so far fall under the notice of a " Physician for All ;" and it is an unsound state of things when his profession is degraded by legislative tolerance, as well as by a lack of legislative protection. Virtually it is unprotected—the stamp of government is against it—while a lunacy commission tantalizes it with the fact of shielding the deluded by its agency : as if the deluded *in esse* were a whit more liable to damage than the deluded *in posse*. A commission for medical protection, failing the means and powers of our medical institutions, would prove of incalculably greater benefit to the community than the lunacy commission itself, *per se*. Insanity unchecked, would work out such a mass of direct and personal mischief, that the necessity of receptacles for this muddy current of human nature brings out the remedy for willing administration ; but unsoundness of principle, working with less obvious ill consequences, is insanely suffered to proceed in its mad career to contaminate multitudes of Her Majesty's subjects with a moral poison, that takes away a sense of moral goodness, with the disposition to cherish the

wisdom which inculcates it. What can be said to justify the means of money-making at the sacrifice of honesty and fair dealing? He who pays half-a-crown for that, which cool reflection would tell him is of questionable value, is contributing to the support of an evil; and to him attaches the insanity of selfishness. Multitudes are committing the folly every day to add to the strength of deceit and to weaken the springs of happiness: thus wickedness is suffered to revel by the help of wealth, and at the cost of worth: thus are nations brought low by the depravity of the people.

I should like to see a comparative statistical account of the insane of different civilized communities making up the nations of the earth. The results would surprise the most civilized of them all, by shewing that the arts of civilization are the sources of derangement beyond their remedial power to counteract. "Pure and undefiled religion" can alone rectify the springs of human action, by exalting them to unselfish ends, and making them subservient to another's good as much as to their own. The conceited man may sneer at this observation, but a "Physician for All" sees so much of the working of society in all its aspects and under all its vicissitudes, that he is enabled to testify to the fact, that the happiest person is he who takes an interest in the happiness of others. Let his religion be of what faith it may; let his politics, or his sentiments, be what they may; nothing exempts him from the liability to insanity, whether actual or relative, so successfully as generosity, or so certainly as the love of the neighbour. The one is as oil to the bones of social life, the other as its marrow: without the first

organization is but a creaking, rickety, and aching thing ; devoid of the second, it is a "pillar of salt" for the wise to abhor.

I have adduced insanity in its relative aspect, by which is to be understood that aberration from the principles of justice and mercy, which is observable in human nature, when its selfishness is the predominant characteristic. The evils which spring from it, are family bickerings, personal strife, self-seeking fraud, angry litigation, religious contention, civil commotions, national wars, great revolutions, anarchy and rebellion. In all these conditions have the people been seized with madness, such as the Great Physician alone can control. It is in vain that one class is for war, and another for peace, when the springs of war remain unchecked at the heart of all ; when selfishness is the lurking demon warming itself at the fire-side of our artificial excitements and conventional practices. For the Christian religion to chain up the dogs of war for ever, its peace-inspiring principles must be enlightening our eyes to enable us to distinguish between the good and the bad in ourselves.

"War dogs" are more ignoble things than armies, for these are holy in comparison, when a righteous cause is impelling every arm to a victorious issue. "War dogs" are bad principles, impelling to selfish aims under every guise. Insanely do men delude, and insanely are they deluded, who advocate peace, when perhaps their names are associated to render a justifiable war unpopular, and yet the while, they are consigning their unfortunate neighbour indiscriminately to the unappeasable severities of the law, by reason of engagements which

would have been kept, but for accident or mischance. Here war to the heart may be raging, in this respect as in many others, if not to the knife; and it may thence truly be called intestine war,—since it is invading the vitals of society, the cry being “for peace,” under circumstances where there can be no peace. As well might religion be made the plea for the cessation of lightning and tempest, as for that of war and its horrors, when the elements of each respectively require readjustment,—the one by the inviolable law of nature, the other by the just law of spirit. Judgment, loud and clear, is perceivable in both, it is audible to the ear of mundane nature, intelligible to the mind of spiritual nature, awful to the ignorant, and terrible only to the guilty.

The arts of civilization do not diminish the liability of human nature and its constitution to the invasion of insanity; rather may it be said, that, when misdirected, they pervert the judgment and distort the rational faculty. They may feed ambition till it puffs up the individual with vain conceits, from which come the delusions of greatness and power, that beset the minds of a large proportion of the insane. They may bear away the devotees of learning to the giddy heights of Olympus, and impart to them the silly gratification of imagining that wisdom is theirs exclusively. They may intoxicate, by the excess of appetite with which they are appropriated. They may be forming an alliance with the truths and forms of religion, and warp them to their own worldly character. In these several respects they are working prejudicially, simply because they are elevated out of their natural sphere, and regarded as sources of great-

ness and happiness, rather than of rivalry and strife. Nevertheless they are valuable commodities, and, like riches, bring their responsibilities.

The railway and the steam-boat, the electric telegraph and photography, are great achievements of modern art; but unions, madhouses, and prisons, are as constant a quantity as ever; neither the progress of science, nor the perfection of art, rendering them an evanescent evil. A "Physician for All" would gladly impart health to every enterprise, as well as to every human faculty; and, as he sees the arts are the chief instruments of human exertion, he would inculcate their cultivation under a sense of their subservient, rather than of their paramount value.

The psychologist will admit that the majority of the afflicted by insanity, exhibit no organic derangement whatever, upon examination of their brains after death. No appreciable change can be detected; and, perhaps, we might as well look for marked difference of structure between the brain of a Newton and of a rustic. Difference in dimension is observable, and nothing more. The fluids are, therefore, thought to be at fault; the blood more especially. But how this can establish the extraordinary amount of difference between a sound and an unsound intellect, it is difficult to conceive. The influence of intoxicating liquors, of certain medicines and gases, demonstrate the fact of their inducing changes temporarily on the blood, and, through this, on the cerebral organization and its functions.

On the other hand, instances are not unfrequently occurring of very serious accidents and diseases be-

falling the brain, without the slightest derangement of the intellect as a consequence. Nearly one-half of the brain may be destroyed without a single symptom of the extensive mischief presenting itself.

I have seen a little girl playing with her companions, whose complaint was only a purple-coloured rash, for which I was requested to prescribe a remedy ; no bodily function whatever was impaired beyond this ; and yet, in twenty-four hours, her body was under examination to discover a reason for her sudden death. One hemisphere of the brain was changed into an abscess. The other was sound.

It is with intelligence, it would appear, as it is with vision ; the functions, respectively, may be performed by a single organ, as if both were simultaneously in action. In this case the extension of the disease was gradual until it involved a portion of the brain directly necessary to the well-being of the heart and lungs. Still the most furious mania may be the positive condition to the hour of decease, and yet nothing of the nature of organic derangement can be detected upon the autopsy.

To detect a change in the condition of the blood is an object worthy of chemical research in such instances ; but the results of this research should have a view to treatment, and the investigation itself should be considered only secondary and auxiliary to the guidance and light of medical history and therapeutic experience.

Medical history abounds with proofs of the surcharge of blood with impurities of divers natures and kinds that defy all classification. Unnatural condition of blood is a general term, but it is closely related to all the causes that produce it, and is, therefore, far more

logical than the often employed word "irritation." This, indeed, is but an effect, or a state induced, and sound reason requires its cause, which cannot but be an irritant of some kind : and what I would ask are so irritating as impure matters in the blood ; or as its unnatural conditions, however induced? Mechanical irritants and mental irritants, of multitudinous variety, can also be enumerated, each requiring specific consideration for their removal, and each affecting the circulation of the blood prejudicially, even in its pure condition ; but the infinitely wider range of causes operating to the derangement of the brain itself, demands more especial study still.

Let us contemplate the invasion of an eruptive fever. A slight amount of exhalation from one subject is received into the constitution of another ; diseased action ensues in the place of what was healthy ; the tainted blood engenders a volume of impurities of a like nature, which if not thrown off to the surface of the body by the agency of the brain, the nerves, and the arteries, involve the brain itself in disorder, and a rambling delirium, a form of insanity, sets in : reaction, however, follows ; an eruption appears on the skin, and the brain recovers its wonted sanity : to this end the appliances of skill,—whether directing the administration of medicines, or observing the rules of hygiene, and supervising the duties of the nurse, are so many auxiliaries. But this is an instance only of a transitory delirium.

Delirium tremens, as it is called, or the sign of excess in a particular indulgence, is but a surcharge of impurities in the blood of a drunkard. His brain is inundated by them : it has done its best to stay the inroad of the

fiery elements into its sanctuary : but every barrier is, at length, broken through, and delusions of the wildest kind, varying most singularly with the varieties of the intoxicating fluids, disport themselves with resistless force.

One patient, of the legal profession, under the full influence of large potations of ale, became noisy and unmanageable from conceiving that crabs were biting his legs. He thought me very blind because I could not see them. "Why, I can catch them," he said. I was curious to discover whether the delusion, which played upon the nerves of his lower extremities, could affect the nerves of his hand also. His attempts to catch the imaginary animals were fruitless. He felt nothing of the kind in his hand, though he assured me he could see them. He was standing at the time, at the head of the bed ; his body bathed with perspiration ; his limbs shaking to the utmost ; his mind occupied by the idea of the crabs on his legs, and by a fear lest, if he were touched, he should fall to pieces. He had been in this state for many hours ; without sleep for the rest of his exhausting powers, and without nourishment to recruit them. Nothing, in short, would remain on his stomach that had been ordered for him.

The first object was, to quiet the irritated brain. I accordingly directed the free application of cold water to the head. To do this most effectually, he was laid across the bed, with his head over a washing tub, which received the water as it streamed down from a large towel that was repeatedly saturated with it. He was, at length, gratified by the operation, and encouraged his operators to go on. He presently became

tranquil, manageable, and sleepy. I soon took my opportunity to treat the symptoms of his case and their causes. Ammonia, with rhubarb and cascarilla, made up a valuable mixture for the removal of impurities, which appeared in the form of black secretions from his liver, and turbid excretions from his kidneys, it likewise supported his nervous power, and imparted strength to his stomach.

Many other cases of this singular disorder have come under my care; and, generally, with a very successful issue; without the exhibition of perilous doses of opium, which are too frequently resorted to. A speedy way of bringing about a state of quietude, to supplant that of extreme restlessness, will be found in the administration of a teaspoonful of antimonial wine every five minutes; by the third dose the object will be gained, and free purgation afterwards, by rhubarb more especially, will set the patient in the way to comparative health. On this remedy full reliance may be placed till natural secretions are restored; by this time delusions, rage, suspicion, muscular tremors, a bloated countenance, and flushed eyes, will have disappeared from the corporeal stage, on which so many ludicrous scenes have been performed in this mad drama of life.

I have seen patients recover from a state of great exhaustion, the result of starvation almost, by reason of the weak and irritable stomach which the irritating habit induces. This exhaustion, when recovered from, would seem to operate sometimes as a permanent bar to the repetition of the stimulating propensity; for, in several instances that have fallen under my notice, the patients were treated for inflammation of the lin-

ing membrane of the stomach, and on this condition being removed, they dreaded a repetition of the suffering. In one case, indeed, life was maintained, and health afterwards restored, by the wife of the patient supplying him with a teaspoonful of good hare-soup every five minutes, for several hours consecutively. Delirium tremens, in its full intensity, had once been his unpromising condition. No lesion, however, of his organization had been produced to constitute a permanent derangement; nor was the constitution of his blood prejudiced, by its surcharge with irritating matters to preclude its being restored to a normal state.

States of the blood have a large share in the production of insanity. I know a gentleman, who was for many years in an unsound state of mind, and incapable of managing his affairs: but he, at length, was seized with gout in his extremities, that persisted for some months, and left him perfectly restored to reason, as well as to bodily health. During this long period, there is every reason to believe, that the constitution of his blood was such as to suspend the functions of the higher faculties,—all the lower faculties remaining unaffected, which relate to the merely animal and corporeal processes of life.

The turmoil which makes up a fit of gout is, in fact, a change in the constitution of the blood: the powers of the body, or the organic structures, being the indices of its progress, as well as the instruments concerned in effecting it. This turmoil, moreover, is but the strife between order, as an essential property of the formative force of animal nature, and the disorder which is induced by contrary agencies and influences. The latter

rise to a degree and an amount that preeipitate their own expulsion, even as storms and tempests, in mundane nature, disperse the deranging gaseous and other exhalations to be succeeded by sunshine and calm.

Such is our economy, in its widest and fullest acceptation ! Outward nature exists for its maintenance, for its representation, and its illustration. Its own nature the while, being free, intelligent, and accountable. No wonder, then, that of our freedom we disturb its equilibrium ; that of our intelligence, we pervert its order, and that of our accountability we estimate its requirements by a selfish rule. Hence come all the disorders which infect our common nature, and the pains, the woes, the judgments that are indispensable for its orderly readjustment. Thus, from our very diseases, may we learn useful lessons ; and, by our diseases, make the arts that conspire to heal them, subservient to wisdom : of such wisdom should every " Physician for All " be a disciple.

But I cannot forget my being requested to see a lady who was reduced, by a long visitation of insanity, to a thin, pallid, and enfeebled state of body, with a dull, stupid expression of countenance, and with a consciousness perverted to a degree that caused her to regard her old friend in the light of an enemy, and this despite all the experience of former days. I contemplated this sad perversion of consciousness, and lamented the fact of such perversion arising from many other causes besides those of diseased states of brain. Error, prejudice, and selfishness will, severally, produce it, and time is too short for its correction ; but, in the case now presented, right mindedness returned in its strength to gratify

myself as well as a large circle of other friends. From what I observed, I suggested the removal of the patient to the sea-side, and the administration of some preparation of iron,—this suggestion was acted upon ; an attack of gout at her extremities supervened, reason resumed its sway, and afforded a demonstration of the importance of a healthy condition of the blood to the due performance of the cerebral functions. There can be no doubt that the nervous system was strengthened by the treatment, and enabled to banish the pernicious elements constituting this form of disease, to less important organs, as to the extremities, and afterwards to expel them altogether according to the usual course. I would observe further, that though a course of steel medicine and change of air contributed to the removal of insanity, it was only under peculiar circumstances ; and, therefore, a “ Physician for All ” must ever protest against the prevalent practice of commending one remedy, or one set of measures even, for one form of disease ; for he well knows that what is beneficial to one person may be prejudicial to another, however similar the form of the disorder may be in the subjects it invades. This observation applies most extensively,—it explains the anomalies and difficulties of the healing art, it accounts for the multitude of *best* remedies for a multitude of complaints, and it reconciles us to the mixed condition of our existence, arising as it does from the infinite diversity of our common nature. All this is respected by a “ Physician for All ; ” but it is abused by the charlatan, if not by the specialist.

The history of a single case of insanity, as well as of

insanity in general, is frequently full of interest, and replete, besides, with instruction. I have witnessed the increment of a suspicion from the most trivial cause, till it has occupied the whole mind with the most harrowing ideas of misery and departed happiness. I do not like to mention the trivial circumstance which has been as the incipient spark to the subsequent conflagration, for it might be entrenching upon the sacred domains of confidence. If the patient is predisposed to insanity, the susceptibility is measured by the rule; but when a suspicion finds its seat in jealousy, as a ruling characteristic of the individual, a commotion may ensue that extends to the whole corporeal economy. The mental disorder then owes its rise to interior causes, and will not admit of being rectified till the mental strife is appeased. Such disorder I have seen exemplified in the person of a gentleman whose second marriage was quickly succeeded by the suspicion that his wife married him only for his money. Under this idea he gradually lost his health; as my patient I could not but perceive that some mental cause was at work to his bodily injury. I stated my views very candidly, and not till after several days' resistance did he admit that my opinion was correct. On admitting his suspicion, I felt it my duty to remove it if possible. I taxed him with injustice. I even told him it was sheer wickedness to entertain such a suspicion, and that he was rendering himself quite unworthy of the affections he was looking for as his right. I entreated him to consider well the nature of the impressions he was yielding to, how bad they were, both in their origin and in their effect. He was a good man at heart,—

it was an error of judgment; of his own honesty, and love of justice, he could admit the existence of honour and justice in another; he perceived his liability to err—he felt the possibility of his acting wrongly, and yielding to good impulses, thanked me for my remonstrances. But the suffering did not terminate here,—the constitution of his blood was most injuriously affected by the trouble of his soul; it required certain processes to re-establish it in its more healthy state; he was not seized with a fit of gout, but an inflammatory action was set up in his right hand, which would have proceeded to an abscess, or to worse consequences, had I not leeches the hand most freely, according to the renewal of the inflammation, time after time. Upwards of one hundred leeches were applied throughout the seizure, besides the plentiful purgation which was resorted to simultaneously with the leeching. This gentleman enjoyed good health afterwards, and a good wife was appreciated as became an honourable and just man.

He had been on the verge of an overpowering delusion, to render him an inmate of an asylum, but good counsel prevailed, for it had good ground to work upon. Sound religious truths were deeply rooted in his understanding, a treasury of good principles his heart proved to be, despite the errors and the weaknesses of his inferior nature, and insanity could present no more than a threatening aspect. The right hand became the seat of determination of the bad fluids that were engendered in the constitutional strife; fortunately, also, it became the vent for them, by the aid of leeches, rather than of abscesses and sinuses for the escape of puru-

lent discharges. Had the treatment been otherwise than it was, it is difficult to say what would have been this patient's subsequent condition. I believe a mad-house lost an inmate, though sophistry in the support of fallacious views makes clear reason common-place, and sound deductions out of place. This is ever the cunning of sophistry to disparage the offspring of common sense; but a "Physician for All" is bound to expose its arts. Would that it prevailed less in religion than it does in physie: for it frequently despoils faith of its force, by depriving it of its moral obligations. The issues of such mental labour are nothing but contentions, baekbiting and envy. In the religious world this state of things is most rampant at this time, and no honest individual can deny it.

The translation of a condition of brain constituting unsoundness of mind, to that of the extremities constituting a fit of gout, is a phenomenon that I have several times witnessed: it is an exchange worthy of all congratulation both to the individual and to the nature of our common humanity. But that such translation should be so long in taking place, may also prove a fair argument for establishing the position, that art might have effected it much more expeditiously. Had not the lady (whose ease is already given) been removed to the sea side, and treated with some preparation of steel medicine, there is no knowing how much longer she would have remained insane. We cannot determine, therefore, how many subjects of insanity add to the bills of mortality as such, who might, under appropriate treatment, have been spared this distressing result. Nor is the reverse of this position to be disregarded, namely,

the impossibility of determining how many become the inheritors of insanity by reason of injudicious treatment of certain constitutional disorders, or of merely bodily ailments, as depending upon a bad constitution of the blood being suffered to persist for a very long time, but which admitted of correction in the first instance.

I am very certain that many disordered conditions of blood persist for years, till what was preternatural to the individual becomes at length natural to him,—his temper, his inclinations, his pursuits, his reasoning, and his conclusions, all partake of a morbid character. Live or feed as he may, his blood remains unchanged. It gradually attains a worse and worse constitution: a host of doctors may have essayed to alter it, without effect, and he dies an old man prematurely, or lives an imbecile, or the victim of delusions, and, at length, a guest in an asylum.

From cases of severe extremity that not unfrequently come under observation, important instruction may be derived not easily to be forgotten. Thus, some years ago, I was attending a lady with a tumour in her breast of a cancerous nature. At one of my visits I was received very coolly by the family, who were in the drawing-room to meet me. I enquired what was the matter; and, in a complaining tone, I was informed by one of them that I had put them into most unnecessary alarm, by my representation of the nature of their mother's affliction; for he had taken her to a surgeon, in the city, who assured them he could cure the complaint with ease. I remarked, in answer, that, extremely pleased as I should be at such a desirable result, yet I differed in opinion with the surgeon; and,

also, highly disapproved of his method of treatment, of which I was quite aware by the mention only of his name. I took my leave in all kindness of feeling, and fulfilled my duty in offering to visit their mother at any time, should my services be required. In thirty-six hours I was at the bedside of a maniac instead of a patient, who, only a few days before, was under the slow but grievous process of incipient cancerous ulceration. In a very few hours more the family were bereaved of their mother. They readily allowed me to submit the tumour to the then eminent Curator of the College of Surgeons, in order to receive his confirmation, or otherwise, of the nature of the disease: I need scarcely add, that my view of it was at once corroborated.

Here, the surgeon's object was to prevent the nutrition of the tumour, by maintaining firm pressure upon the parts surrounding it: and in this way diverting the current of blood from it. The patient bore the application with great firmness, even to the point beyond endurance, insomuch, that the cerebral functions were overpowered and prostrated before a hostile guest of most virulent spirit,—such as death alone could appease.

Here, again, is instanced the wonderful power of the animal economy, to consign its engendering evils to structures whose functions are of comparatively less importance to life than others. To interfere with its aims and its processes, in this respect, is neither the duty of a "Physician for All," nor of the surgeon; but both may unite in their skill, respectively, to extract the sting of the malady, the one at the sources of its fluid virus

the other at the termination of its circuit, at its vents, and corroding doors of exit.

For the subjects of this form of disease I would plead with all significant force, that they may bend in their judgment to that of a multitude who are striving with the utmost zeal to eradicate this monster-evil from our nature. Let them reflect on rising and advancing science; let them rest on the honesty of purpose which is animating the majority of the profession, whom science serves at every turn, stimulated as they may be, at the same time, by the desire of distinction, and to become the winners in a struggle so laudable: let them remember how nerves can be made nerveless, for a convenient season, when the scalpel, or the knife, is inflicting its merciful injury,—a boon this of modern vouchsafement, but requiring the greatest caution and circumspection. Let them know that galvanic electricity has not as yet revealed to us all its secret powers and subtle workings, though much is already done with its magic art in compounding, decomposing, and re-arranging nature's elements, and in quickening the movements of fluids even along tubes of glass, or iron, from drops to streamlets. Such influences have only to be transferred to vital tubes and vital fluids, as they are termed, to remove obstructions and to re-dissolve hard deposits, whether assailing glands, muscles, membranes or nerves, which compound our living bodies; and even more than this may be, and is, done, by galvanic agency, for, within a very short period, have I seen an opaque lens, after being rendered so by boiling, made to re-assume its pristine clarity by the electric circuit. The like is effected with the boiled white of the egg. Nay,

more, I am witnessing the daily dispersion of a cancerous tumour from the breast of a lady, who is gaining spirits, and flesh, and strength, that were wasted by the disorder in its previously unchecked progress. I will grant that the operation of extirpation of the tumour by the knife would be the quicker and, perhaps, an equally effectual way; but, as the patient would never submit to it, who can justly complain of this new method, and designate it quackery, without incurring the remonstrance which his illiberality entitles him to?

Furthermore, this galvanic agency possesses the singular property of carrying materials, in their more subtle states and forms, in its own course and stream, even as the drifting sand is wafted along by the winds, and according to their direction. And who, I would ask, can limit the aid which this agent can render in this way to the more subtle fluids and fibres of our corporeal frame? at this moment, indeed, it strikes me that the skilful application of it to several conditions of the ear, which induce deafness, would operate to their removal, and one opinion to the contrary would not alter mine, for its skilful application only could settle the point.

These are the considerations that devolve to a "Physician for All" to proffer to the subjects of cancerous disease, adduced, as this disease is, as an instance of constitution of blood being modified to a degree, that becomes extremely prejudicial to the health and welfare of the brain. They are also the grounds of my recommendation to this class of patients, to beware of yielding to the false hopes which, over and over again, I have seen imparted by the charlatan; the remuneration for which, is but fostering ignorance, or deceit, to the prejudice of

the skilled and honourable of the ranks of the profession, who have a name to maintain, after passing through a long and expensive curriculum of study.

The above considerations, moreover, are not confined to one disease in particular, but they are advanced with a view to comprehend a multitude of other disorders which admit, indeed, of eradication, but which, by mistaken views, by incorrect principles, and by insufficient treatment, are but half removed, or else merely modified to some other form, and, therefore, establish themselves very deeply in the blood, even to become fruitful sources of organic, nay, of cerebral, derangement; to say nothing of their falling most insidiously, but most certainly, upon the offspring. Witness the tendency to heart-affections, to asthma and other pulmonary disorders; to diseases of the liver; to dropsies of every kind, as exhibited in many families, and which warrant the medical investigations that are resorted to by our Insurance Offices. And here, again, I must reiterate my disapproval of the practice of Homœopathy. Its principle is fallacious, and all the reasoning which is based upon, or woven from it, is fallacious also. Nay! as a rotten thread can only make a rotten fabric, howsoever skilfully or artfully woven the work may appear to be, so the principle "that like cures like," being a flimsy starting point, renders its continuation a perishable affair to rely upon for a perpetuity. But like all such inventions, it will have its day and its advocates, though I envy neither the gains, nor the minds, nor the constitutions of those who rest their faith upon it.

Imagination, indeed, as a mental action, will play most strangely upon the ailments of the body, to be followed

by the disappearance of ague, neuralgia, tooth-ache, and even warts, without the administration of the trillionth of an atom of any drug. A very remarkable ease of ague came under my notice, accompanied by œdema of the legs and cheeks, with a sallowness of complexion that indicated either a congested or a diseased liver; it had resisted every remedy, whether prescribed in a county hospital, or in private practice, or by suggestive aid. It yielded, however, to a purely accidental and imaginative impression; the patient conceived that I dropped something into a cup of tea I had ordered for him. In this particular I was beyond the new art, for I did nothing more than write a certificate to remove the patient from the locality; but even this measure was not resorted to. About twelve years afterwards he was attacked with a bilious fever, and tormented by gall-stones, which nearly proved fatal to him. Had I been a Homœopathist I should have appealed to this case in corroboration of the system, and, perhaps, called an opponent a stubborn fool! The man was never under my treatment during his first illness; but had he then been my patient he would have been treated upon the deobstruent plan in good earnest, and spared, perhaps, the formation of gall-stones if not the fever!

An appeal to cure, therefore, is but an incomplete argument,—it is little better than an old woman's pretension, and a failure in this respect is inevitable to the highest art, and to the purest philosophy, for all must die. But of disease do the human kind mostly die, and disease comes from the bad nature, perverted constitution, wrong determination, and so forth, of the blood, as

has been abundantly proved above. Can such large consequences be met by such little measures? To conceive the idea, is to beget a monster evil in substitution for the promised good; that the evil should be cherished is no astonishment to a "Physician for All," who has seen several such evils begin and end. He now takes his stand against the entire system, and repudiating cure as his only stand-place, will engage to demonstrate from the cures claimed by and for the Homœopathic art, that there is no foundation for the system even in this particular. In fact, he has never seen one cure as the positive result of Homœopathic treatment; what cures come of this perversion of art are nature's handiwork. Infinitesimal doses operate not but to cheat: in this respect the administration is infinitely large, and regenerating nature is robbed of its rightful merit: divest the whole scheme of its borrowed machinery, and nothing is left but the infinitely infinitesimal dose,—nothing, nothing. Diet is no German invention; abstinence from bad articles of food is no new rule; error in old practice is no fair reason for the exclusion of reasonable doses of our best medicines; nor is it a justification for the discarding every atom of them except the billionth part of an atom. A "Physician for All" is justly roused to the point of doing justice to his grossly abused profession, now that the operation of sophistry has come so near to his own heart, in his witnessing that of a much esteemed friend being so morbidly affected as to incapacitate, though not indispose him, for one of the highest duties that can devolve to a man, in the present state of society, to fulfil. This clergyman was my patient. About eight years ago, he was subject to an inconvenience which

admitted of salutary aid from the continued recourse to mild laxative medicines. Such slight affections are not unfrequently, in themselves, salutary to the constitution,—they keep off major evils, they result from a wise provision of the economy of the peculiar subject; and, therefore, when interfered with by his short-sightedness, he fancies his object is skilfully gained, when, in fact, his trifling malady has shifted its seat to some more important, though less sensitive structure, and accumulates insidiously there, without check, till it may be beyond remedy, and even beyond hope. But my patient met with a novitiate disciple of homœopathy, and by the representation of a wonderful similarity of condition, was quickly drawn away to globules of the n -th power of strychnine. Now commenced his career of respite from a local inconvenience, and of congratulation for the inestimable discovery. The globules continued to enjoy the utmost faith for several years, till an uneasy sensation was felt in one foot. To what cause to attribute the new condition became a puzzling affair: alarm was engendered, consultation sought for,—though not with the old doctor, because of his disapproval of the school,—but with one of the same class, and a diseased state of the good man's heart was declared to be the ground of his physical incapacity for continuing his clerical duties, and even of the threatened mortification of the integument of the foot.

Now what, in all the preceding years, was done to retard or avert this serious cardiac mischief? Did the patient omit to take one decided purgative in all that period? If so, who can marvel at the vital change

which was so stealthily establishing itself in his system ; a thousand impurities may accumulate in a person's blood, and float about the body till they find a permanent seat there, unless purifying medicines are had recourse to for some cause or other ; and what if they sometimes invade the brain, as well as the heart and lungs, or liver, or kidneys, or other glands under the auspices of the do-nothing globules ? Such consequences can, and may, and will come sooner or later from such misplaced confidence ; and it is the duty of a "Physician for All" to warn the community of the hazard to their constitution of blood and body from this source. Such is his opinion on this head, and such his declaration, according to his title and privilege, in counteraction of the habitual abuse that is cast upon good old practice by a class who are in reality distinguished for nothing else. I say "*good* old" practice, in contradistinction to the drugging by a trade-rule, which of late years has degraded the medical profession, despite the fine equipages that have signalized the general practitioner. "Physicians for All" must keep a watchful eye on the diseases which befall families who trust to the system that releases them from bitter potions. Sudden death will be no uncommon event, nor insanity in divers forms, for the blood can sustain a large volume of destructive elements, for a long period even, and impart an aspect of health when a prospect of illness is inevitable upon the operation of disturbing causes, which the constitution is then unable to resist.

People will bear with a dry tongue, an indifferent appetite, indigestion, lethargy of limb and sense, sleepless nights, a hard pulse, a flushed or a pallid counte-

nance for months, and disregard the warnings; they will even be always visiting the petty globule box, and fall into danger for the want of judicious precaution or advice. To use a homely simile, they either never sweep the chimneys of their fireplaces, or, they attempt to keep them clean by a feather or a hair-pencil; or, to state a fact, every pore and outlet of the body, like drains and sewers, is a vent for the escape of the fumes and ashes of a vital combustion, and the sweeping powers of medicines are more or less necessary to keep them free from obstruction. Nay, it is the Physician's duty to consign every evil and impurity by the wisely prepared ways and means, to their places of least mischief to the body-economic, and, accordingly, a "Physician for All" contributes this, his minimum of strength, to the Augean Labour, despite the privations of comfort and rest which accompany it.

Having traced the phenomena of the insane state through their several phases, as depending on accidental and transient exciting causes, such as intoxicating fluids, poisons, suppressed gout, translations of disease, or metastasis as they are termed, to the brain; and disorders of the blood that are met by inadequate remedies; it is manifestly within the scope of reason and probability to cure the insane, as our experience demonstrates to us by the facts of such cures as are already accomplished; and what is more, it is possible upon the same data to lessen the family predisposition, which mars its prospects and affects its *status* in society so lamentably. At any rate the view is cheering, and the attempt laudable. Would that the view were less interrupted by the interferences of a thousand

devices, which are fostered by credulity and nourished by extortion, failing the while to consummate a cure. That the attempt will ever be frustrated, however laudable, is obvious enough, as long as selfishness supports selfishness in exchange for the fascination of sophistry. But the attempt is made, on the ground of an improved constitution of blood, which can be brought about only by corrective measures of a more active and varied kind than the multifarious specifics, and nostrums and regimens of the present day can severally supply. These, indeed, are but stolen implements; they can be traced to the *Materia Medica* of qualified medicine; and it is a lack of courage, on the part of the general faculty, not to check the spoliation that impoverishes its vitals, and exhausts its power. A third generation of such unresisted licence will saturate society with licentiousness, and it will be so far imbecile in discriminating between good and evil, and incapable of detecting the sources of its increasing proportion of insanity, and of numerous other evils.

The liberty of the subject is the plea set up for holding back the hand of protection; the liberty to cheat being a prerogative too precious to be opposed. Our institutions are thus made of none effect, save to take money in exchange for privileges, which are found, in the after-life of action, little better than empty names.

For the profession of physic to be adequate to the requirements of the people, the people themselves must support it, instead of dodging about after one knavish scheme and another; for when this is the habit of a people all sorts of doctrines will come forth to suit every fancy and to attract every sort of customer.

Truth, moreover, in principle and in practice, takes its leave, and those who conscientiously strive to become its disciples are soon made the starved and the poor of the land. It would be wise, therefore, in the public, to urge the several faculties of the profession to unite in obtaining a positive rather than a nominal power, for the suppression of misapplied medicine, as well as of the adulteration of drugs and food. "A sound mind in a sound body," is a very ancient principle; but half cured ailments of the body give the mind only half its scope, whether for its reception of knowledge or the application of it to useful purposes. The sick in body, like the imbecile in mind, think much about themselves; hence they covet so much attention, and seem to be more interested in making complaints than intent on the means that would heal them. Such persons would not like to be pronounced unsound, yet who can pronounce them sound? Their constitution both mental and bodily is defective, and it is the honesty of the honest doctor alone that can rectify the defect. By the exercise of his art the Physician can impart wholesome instruction, and even turn a community from the ways of weakness and folly. On the other hand, when he panders to a patient's caprice, or gratifies a patient's self-complacency by his scandals, he is the veriest pest in society, for he is injuring its constitution extremely. His influence is for evil, and he leaves a train of it in his every path. The reverse of this should characterize his career, and goodness qualified by intelligence, be the distinguishing remembrance of his presence.

In the madhouse, even, the Physician can exert an

astonishing power under great emergencies. Many are the interesting records in proof of this position; several have occurred to myself: one instance I may be allowed to relate, where two gentlemen were confined in an asylum, by reason of delusions, under which their conceits of their own importance were the predominant characteristics of their insanity. They were extremely jealous of each other, insomuch, that it was dangerous to bring them together at any time. It happened on one of my visits to one of them, that, on his politely seeing me to the door, he met his rival in the hall. A state of excitement was produced, which was felt throughout the whole establishment, the stronger of the two seized the other by the throat, and would have strangled him by his savage grasp; and it would have been in vain to attempt a forcible release of his suffocating victim; but I immediately addressed them in a tone of earnestness, saying, "Gentlemen! you forget it is Sunday!" The victim breathed again, and a ease was supplied of the power of moral influence over even the lunatic's perverted will. Would that a Physician's appeal to the good common sense of mankind could be so readily listened to and acted upon;—an appeal that would relax the universal grasp for mastery, and open the portals of the imprisoned kindly affections, which delight in good service rather than in dominion.

My patient had been a very clever man in the world's estimation. My first attendance upon him released him from his confinement, and I received more than one letter in acknowledgement of the benefit he had derived from my prescriptions; but a relapse was a fatal

visitation to him; and on examination of his brain, after death, it was found to have been long at its work in contact with numerous scales of bone inserted in different parts of the dura-mater that covered it. The base of the skull also sent up several long sharp spiculæ of bone, to occupy the interstices of the brain's convolutions, and thence to disturb their revolving movements, for the disposal of the stream of images rising thither from the outward world. No wonder, therefore, at my poor patient's excitability,—his naturally active cerebral power being in this manner interrupted and deranged.

I have seen one other instance of such bony scales and spikes irritating the otherwise healthy cerebral masses to the madness, that uttered many an oath in association with a hiccup,—a hiccup, with its oath, that persisted to the last breath. Here the brain was roused to emotions that constituted a phrensy, which fell with convulsive intensity upon the phrenic nerves and their subordinate diaphragm.

But despite these maddening irritants to maintain a constant irritation, a moral consideration operated in the former case instantaneously, to repress the emotions of hatred. Oh! that a spiritual consideration could operate in like manner to stay the tumult of horrid war, and the clangour of its iron instruments!

That spiritual consideration is the "new commandment" which has been so long of no effect through old traditions and new sophistries.

The two last instances of madness I have referred to may have been independent of hereditary tendency, though bony depositions betray an hereditary taint. I

have known the thrilling twang of *tic-doloureux* connected with such spicular deposits on the *dura-mater*, but whether in the way of cause and effect it is impossible to determine. These bony deposits are sources of cerebral derangement by mechanical necessity; but such derangement comes, for the most part, from causes wholly irrespective of any structural lesion, as a large experience will abundantly testify. To the bad conditions of the blood, therefore, I ascribe the majority of the cases of insanity, which occupy our public and private asylums. It signifies nothing that chemistry is eluded by the multifarious conditions I am speaking of; what retort or crucible, what test or re-agent can contain or detect the subtle materials which are suited to traverse the gossamer-thread-like tubes that spread forth from their cerebral masses and cords of nerves for the purposes of sense and motion? still less can they serve to determine the powers, qualities, and composition of this nerve-blood: our rational faculties alone can avail us to perceive, not only the necessity, but the reality of such a fluid, and by this perception to conclude that it is chargeable with divers impurities and defects in vitiation of its constitution, all which are so many causes of the strange anomalies presented to us under the different forms of insanity.

It is as easy to understand how melancholy is connected with blood vitiated by bad bile, as laughter is with blood saturated by respiration with a gas of artificial preparation. The inhalation of other gases and vapours will also produce extraordinary effects in suspension of sense, and render it an absurdity to refer them to the brain as an organ unaffected by what is

circulating through it, and, in fact, constituting its very substance. Nay! the alternations and periodicity, the exacerbations and remissions of the insane state demonstrate the play of fluid rather than of solid nature. I have had a patient teeming with delusions, and intolerably troublesome of a morning, but rational and agreeable of an evening. Some pathologists would refer this state of things to the mucous membrane of the stomach; but it surely is more consonant with reason to refer it to changes in the blood, the constitution of which is varying, both generally and particularly, at its every round.

From these observations it may be concluded that it is in the power of a "Physician for All" to control insanity beyond what is already achieved, especially if he views it as depending on vices and defects in the constitution of the nerve-blood itself. I have acted upon this principle for many years, in several notable instances, and even frustrated efforts for establishing a lunacy commission with the prospect of a cure before me, and which prospect was fully realized; the patient being now a sound and useful member of society.

Another instance occurs to me where a young lady's mind gave way under the perplexities and postponements of a suit in chancery. At first she was violent, suspicious, morose, and revengeful. "Give me my money," was her constant theme, and on one occasion she struck at me with a dinner-fork, which she got possession of, and which, but for a quicker movement of my own, would have penetrated into my side. I regarded her case as incurable from the first; but it be-

came at length very manageable by the exhibition of salts and senna and the effervescing saline mixture upon every increase of her excitability. She has never been in an asylum, but an attendant has been her companion also for many years, in comparative comfort and ease. The attendant always associated the state of her mind with the surcharge of her blood with bile: as this was cleared away by her medicine, so calmness and rest returned.

Whilst detailing these cases a lady required my assistance, who, thirteen years before, had been my patient for delusions of several kinds. The chief of which were, that her father was murdered and her mother buried alive. From that state she had been relieved, and enjoyed a composure of mind for nearly the whole interval. The same delusions had returned, however, with all their force, depriving her of rest and of the power of self-control. I prescribed eight leeches to the pit of the stomach, and a blister afterwards, by reason of tenderness with congestion of the liver. Her general condition was one of extreme restlessness and irritability; she refused to take food, with a view to starve herself; her complexion, tongue, and pulse indicated the presence of impurities in the blood, such as the liver and kidneys are concerned in removing as their especial functions; and when a surcharge of them takes place the medicines that act directly on these organs and increase their action, are called for. In conformity, therefore, with this view, I further prescribed two pills every night, consisting of compound colocynth pill, powdered rhubarb, castile soap, and extract of henbane, in doses of two grains of each; and a draught contain-

ing one draehm of tartrate of soda, a scruple of bicarbonate of soda, twenty drops of tincture of aloes in an ounce and a half of spear-mint water, every six or eight hours. In addition to the usual instructions given to the nurse, she was told to observe the colour of the alvine excretions, and to persevere with the medicine till they became decidedly yellow. In a few days this result was brought about, larger evacuations of a dark brown colour having been produced in the mean time.

I saw her on the 20th of January, and on the 3rd of February she was apparently convalescent,—her complexion had become clear, her tongue clean, her appetite good, her sleep natural, and her mind released from the overpowering force of the delusions that had tormented her. When the excretions had assumed a natural colour, the mixture was discontinued and effervescent saline powders, with five grains of nitre, were substituted for it. The pills, however, were repeated every night.

In the treatment of this case, it is to be observed that, neither a mercurial nor morphine was administered; that the improvement of her general condition, and especially of her nervous symptoms, was co-incidental with the appearance of yellow, in the place of dark bile; and that the relish of her food instead of its rejection was a co-incidence also.

This easy and simple treatment imparts the idea of its application to a simple and common case, whereas it was one that would have proceeded to self-destruction, or to more positive restraint and seclusion for months in an asylum. To myself it was gratifying to see my patient in so short a time at needle-work, and

yielding with readiness to every requirement. It may be remarked that I lay great stress upon the appearance of yellow coloured bile. I never have yet seen a case do well till this was brought about. To mothers and nurses I would say, "Never think your children safe, or in health, in the absence of this all-essential condition." Every other appearance of this evacuation is a departure from health or a delay in its restoration.

I need not here detain the reader with a description of the great variety of ingredients which enter into the composition of bile; like the blood, (of the degenerated portions of which it is for the most part constituted), it is most diverse in nature and constitution, even though its colour be yellow. This yellow colour, however, declares the liver to be in a state for performing good service to the body, as far as its own functions are concerned, and then I have frequently observed to my patients, "Now are we on the high road to health." Blue pill contributes a good share in the restoration of this excretion to its normal character; but colocynth, and scammony, and rhubarb, and jalap, and the various saline laxatives will contribute to this effect most satisfactorily also, and bountiful Providence is no where more bountiful than in furnishing the means for clearing away the obstructions which interfere with our enjoyment of life in this sublunary world. This observation is particularly supported by my experience in the medical treatment of insane patients, and I do not hesitate to affirm, that, until this decidedly yellow colour of the bile is produced, in vain may the return of reason be looked for.

The record of this case, and these observations upon

it, were scarcely completed, before a relapse was reported to me. My views, my practice, my conclusions were prostrate before the humiliating fact. The condition of my patient was worse: her cunning eluded the vigilance of her attendant; she had secreted two half-ounce phials of laudanum; she availed herself of an opportunity to swallow the whole quantity; a lethargic, but not a comatose, stupor prevailed for about thirty hours; a few grains of calomel and two black-doses produced profuse evacuations of bile. Wakefulness returned and she enjoined me not to trust again to a sleepy or a deaf nurse. For several days more she was the victim of active delusions, and measures were commenced to remove her, but her family persisted in seconding my views and medical efforts. Large evacuations of bile continued to flow as the result of mild laxative pills. She gradually got calmer, more manageable, and cheerful; her delusions were passive, and even questioned by her own reflection, insomuch, that she made no opposition to an arrangement for entrusting her pecuniary affairs to other hands, as a precaution against the inconveniences of another relapse. I need not say with what increased satisfaction her relatives received me, and greeted me with their reports of her decided improvement, after this second outburst; it was proportioned to the disappointment and discouragement I encountered; but, at the same time, it was confirmatory of the lesson I had learned from my earliest professional days, to persevere,—a lesson, however, but in part fulfilled, for I was not fifteen when the parish-priest inculcated the maxim every Sunday from his pulpit, that “*practice makes easy, and perseverance makes*

profit." The latter clause I have yet to experience, for it is a perilous, nay! a ruinous thing, to strike out a new path, howsoever promising, or safe, or more direct for a desired object for public good, it may be. Of this I am fully convinced, namely, that as much is not done, medically, for the insane as might be, to bring about the amelioration of their mental condition, or even their restoration to reason. A few hours ago I asked my patient "how her thoughts were now?" her answer was, with a smile, "oh! they are quite comfortable."

I will further observe that, whilst the Physician diligently notes and meets every symptom and peculiarity which present themselves in the course of a long continued fever, whether of a typhoid or a simple character, they are, for the most part, neglected, when the course of some active delusions is proceeding: such delusions being regarded in the light of a cause instead of an effect, so that they are left to mere nursery, rather than to skilful medical, management. If the head is hotter in one part than another, as it will frequently be, cold applications should be resorted to: if tenderness exists in the region of the liver, leeches or a blister should be applied: if the pulse is quick and hard, it should be reduced, as it may be by a few leeches over the region of the heart, and by mild doses of antimony and nitre, which soften it and lessen irritability, and increase the flow of urine or of perspiration: if the feet are cold, they should be made warm: if the tongue is not clean, it should be made so by diligent attention to the hepatic function, and so on with the rest of the abnormal states.

I have alluded to increased heat in different parts of

the head: for one part will be several degrees hotter than another part, under states of insanity; shewing that different parts of the brain are liable to congestions and inflammations, whilst other parts are in a natural condition. As to the seats of the mental faculties, I believe the entire brain is necessary to every faculty, and also, that every faculty can be performed by every sound portion of it. It is so with respiration as a function of the lungs;—its modifications are innumerable, according to the innumerable circumstances under which the lungs may be placed. Intelligence, as including every mental operation, is a function of the brain, and its indefinite modifications result from the indefinite variety of changes of which the brain is capable. The measure of capacity for this or that function may be expressed by an outward conformation; but to say, that this part is the seat of one faculty, and that part of another, as an organic necessity, is to teach an apparent and not the real truth. If one person possesses the gift of a ready acquirement of language, an intelligence of its meaning accompanies the gift, and this depends upon soundness of brain. How then, can a portion of it be called an organ? when this portion is as necessary to other functions of the brain as these are to it. Intelligence is the ruling term and function,—it pervades every mental operation,—and a capability for this or that course of thought and action may be laid down on the organic map, and delineated, as it were, by the phrenologist when locating the faculties; but the map cannot declare the character or the tendencies of the individual, any more than does a chart of the world indicate the character and habits of the

races of men by which it is peopled. Let a person's head then be of what shape it may, he may uncover it without fear, and feel that no other than a righteous judgment can be righteously passed upon him. If, therefore, one part of the head be hotter than another, I do not inculcate an enquiry into the phrenological bias of my patient, but I employ my remedies for the reduction of its temperature as I should for that of an inflamed joint ; and I feel satisfied, that in doing so, I am pursuing a right course for the benefit of the individual, and particularly for the brain itself, more especially as I am very sure, that if the condition of the brain is faulty the functions of the body appended to it, cannot be rightly performed. Thus, digestion as a function of the stomach ; excretion of bile as a function of the liver ; or of urine, as a function of the kidneys, and so forth, must all be faulty, seeing that the nerves, as proceeding from the cerebral masses, influence these organs respectively in the most intimate manner. If this were not the case, how could alarming news spoil a man's dinner, or jaundice him, or check the retention of his urine, or paralyze his muscles, or make his skin alternate between red suffusion and fearful pallor ? Why, otherwise, should the respiration falter and the tongue be speechless, or the voice elevate to the frightful scream ? or why should the heart palpitate and throb so fruitlessly for the invigoration of its body or to resist the cause of all such disturbance ? The fact is, the relation of the brain to its body is as yet but little understood. *Sensorium commune* as it is, it is not perceived to be the very potency and complement of the functions, and even the essential concentration of the powers, of its appended body. The

nerves which issue from it are but the continuations of the brain; in which latter term I include cerebrum, cerebellum, medulla-oblongata, and medulla-spinalis : these nerves are as their origins, and convey the originating functions to their own respective destinations, as to the instruments where potency becomes efficient and intention actual.

With these considerations in view, it is of importance to watch the temperature of the head,—sometimes the forehead will be found the hottest, sometimes the top of the head, and sometimes the hinder part. To equalize and to reduce its heat to a natural state are desirable objects, for when the heat is preternatural, either congestion, or inflammation, or morbid increase of cerebral action is indicated; and with these states corresponding disturbances of the respiratory, or circulatory, or digestive functions exist, on which the right constitution of the blood is depending every moment. From this point, indeed, it may be discerned that the brain, in its complex, is also the general *regulator* of the organic processes by which the blood is prepared, as well as more especially the *laboratory* of the nerve-blood in its own sphere. In the former respect it determines the appetency, and the necessity for kind and quantity of food, or of the materials from which the blood can be prepared: in the latter, it imparts nature and quality, or constitution to such blood, conformably with its own characteristics of soundness or unsoundness, and embraces a domain of functions which no intelligence can ever compass or experience fathom.

Well may a “Physician for All,” therefore, when

essaying the amelioration of insanity, closely scrutinize the brain as the seat of the disturbance, its extent, and its intricacy. For its disturbance proceeds too frequently to derangement; its extent is commensurate with its universal rule in the kingdom of the body; and its intricacy baffles all but a most general knowledge of its structure and action.

That the brain acts there can be no question, or how could it actuate any thing? That it moves, is equally certain, or how could it act? That its motion is by alternation of expansion and contraction, its surface declares, and its superjacent case of bone makes most manifest, or why should there be smooth, lubricating membranes on the one hand, and cavities marked in the bones, corresponding with the convolutions of its convolutions on the other, despite the intervention of the membranes? Nay! it is formed for motion, and with such amazing discrimination of its parts, that it is fitted to be the instrument of all the determinations of volition, and the recipient of all the affections of sensation. From the brain do the *fiats* of the will proceed: to the brain, do the modifications of the senses rise. In its insantly morbid conditions, therefore, a disordered intellect is not the only manifestation, but general derangement prevails and defies all specific remedy. This derangement may have originated from constitutional tendency, or from unlimited gratification of the passions, or from ambition frustrated, or from baffled hopes, or from ceaseless care, or from excess in application of the thoughts to any subject whether religious or secular, or from indulgence of the imagination by giving it wing to soar beyond

reality, and to waste the mental power in useless occupation. In this summary of deranging causes, it is perceivable, that they fall upon the cerebral organization, and, by its instrumentality, upon the organs of the body to which its nerves are distributed, consequently upon the respiratory, the circulatory, the digestive, and glandular functions which respectively concern the well-being of the blood, or its nature, its constitution and its determination.

Here, then, derangement falls, and in its circulation, re-acts upon the brain as a fruitful source of its unsoundness and aberration. The condition of the blood, therefore, should be the physician's first and ruling consideration, and no province of the body, nor of art, should be disregarded in his efforts to restore it to a healthy state.

The observations I have adduced in regard to delirium tremens will illustrate my meaning: for, in this disorder, the causes and the consequences are so palpable that they cannot be easily misunderstood.

Under this view of insanity, in all its multifarious forms, its treatment becomes simplified, and its curative auspices more propitious. The powers of medicine, moreover, become still more manifest and replete with interest, and with them, the medical art rises to an elevation among the arts of civilization, to render them less liable to perversion into tricks and humbug. That these latter, as so many selfish expedients, are too frequently the shifts of art, is a very melancholy experience, for it indicates an unsoundness of principle, if not of intellect,—of will, if not of understanding; it, therefore, is an indication of nature unchanged for the better; and what is equally lamentable, it indicates a

weakness and indolence of judgment on the part of the people in whose power it is to starve such practices out at every turn.

Animal chemistry treats extensively of the albuminous, fibrinous, and fatty materials which enter into the constitution of living beings—even as vegetable chemistry treats of carbon, oxygen, and azote—the latter make up a kingdom of useful and noxious, or of nutritious and poisonous matters; the former, also make up a kingdom of good and evil subjects; and they, likewise, constitute the blood of a healthy and of an unhealthy individual, and this with preponderating measure, according to favourable or unfavourable circumstances.

The whole compass of nature conspires to the production of the blood: its forces, powers, and matters; its atmospheres, its attractions, repulsions, motions, and forms, simultaneously conduce to its formation, preservation, and renewal; and from the blood come the fibre and the vessel to which every animal fabric primarily refers. By fibre, the nerve-blood speeds its electric course; by vessel, the red-blood circulates; by the former, are brain and nerve constituted; by the latter, are flesh and sinew. Derangements of the constitution of the blood, therefore, may well derange its organic productions, and these again re-act in confirming the derangement by mutual relation. And as a deranged constitution of the blood is the primary consideration for the physician to rectify throughout the entire range of its consequences; so it is his especial province and elevated vocation to consult intelligently for its weal, rather than to work craftily for his own:—so that Creon's sweeping denun-

eiation of the augurs of his day, be not applicable to the hygienists of the present.

Τὸ μαντικὸν γὰρ πᾶν φιλάργυρον γένος.

—*Sophocles, Antigone*, 1055.

“ Their whole race are lovers of money.”

To illustrate the relationship between the brain and the body and between these and the blood, my professional experience enables me to speak of hysterical mania. This extreme condition of cerebral derangement, imparts a knowledge of the nature of the minor nervous affections that are incident to the nascent puberty of the female. That the constitution of the blood is here most manifestly affected to alarming derangement, I do not hesitate to affirm. The whole complex of mental power is a scene of turmoil and disorder. Every organ of the body is correspondently affected; the heart palpitates in countless number; the arteries contract to thread-like calibre; the lungs pant, and even scream for their respiring life; the glands spit forth their secretions and emulge their excretions in inordinate profusion; the senses rouse up to the very eulmen and edge of their power; so that the sparkling eye, the quick ear, the acute smell, the rabid taste, and liveliest touch, make up a body of morbid sensibilities for a burning skin to envelope, and for the stillness of seclusion to pacify. Would that these turbanees of life stopped here to leave the sanctuary of sweet modesty unassailed. Alas! not so! for impatient of restraint and slightest covering, every article of dress, and even the bed-clothes, are torn to pieces. Here, indeed, the jaetitation of limb and body warrants the long-sleeved waisteoat; but there is no restraint for the tongue; for

night and day a ceaseless jabber prevails, with refusal of food, and resistance of all beneficial interference. In a striking case to the point, leeches were successively applied to the hinder part of the head, to the region of the heart, and also to that of the uterus, and applications of poppy-fomentations to the abdomen were frequently renewed. If I had such a case now in hand, I would put cold water in my patient's way to drink, *ad libitum*, and I would dissolve in it a small portion of the least disagreeable of our laxative salts—as the Cheltenham for instance—and this, with the object of soliciting a favourable action of the liver, and thereby evacuating a volume of heterogeneous matters from the blood. My patient remained in a very alarming condition for a long period, so that she wasted away to a mere skeleton in skin; at length, however, by powdering her tongue with little doses of calomel, an influence was established which resulted in large excretions of the most abominably offensive bile; in a reduction of the severity of the symptoms, and in a facility of remedial administration, that removed the peril of her situation. I sometimes meet this lady in society, and am satisfied with the auxiliary powers of the healing art.

To go into the pathology of these cases would be to write a volume; or, were I to discuss each organic structure and function, as modified by the general hysteric condition, a physiological treatise would be produced, and the materials for a phsyceological disquisition would even tempt the philosopher to arrange and reduce them to a theory. The reasons for the phenomena would be advanced, and also, for the reme-

dial measures. Thus, it might be enquired, why does the patient scream so much? why are the excretions so abundant? why is the perspiration so peculiar as to its odour; why are the senses so exalted in power? why has the smell of vinegar the effect of suppressing the screams and sighs of hysteria? Why again, do affusions of cold water over the face suspend the hysterical convulsions? or a flood of tears tranquilize the heart's tumultuous workings? In all these states, the blood, as to its nature, its constitution and determination, is affected; and the brain, the heart, the lungs and glandular system are simultaneously engaged in the tumultuous strife. The inhalation of the vinegar affects the olfactory nerves, and all their extensions inwards through the mammary processes up to the cortical surfaces of the cerebrum. The dash of cold water upon the face, affects the sympathetic extensions of the three several divisions of the fifth pair of nerves, and, by their instrumentality, rouses the whole brain to increased action from another source. The heart, oppressed with its fulness of blood, seeks the aid of the pulmonic breath to its utmost heaving and highest pitch of thrilling voice, to stimulate every ganglion and nerve of the cardiac plexus, so that every cardiac fibre may contribute its greatest power to propel the blood away from the now embarrassed centre. The appliances of art, moreover, as frictions, shakings, stimulants, and antispasmodics are resorted to, to bring about that equilibrium of the circulation which enables the brain to recover its wonted rule. But this is only a brief description of the hysterical state, and of the deranged body answering correspondently to the cerebral derangement. Like the throat, the arterial

system seems choked also, and obtains relief by the flow of tears and of other watery discharges. And medical aid comes best in view when the liver can be roused to its highest amount of duty, and when at the same time, every pore can be relaxed, and every nerve calmed down. For these several and essential purposes, a combination of scammony, ipeacuanha, and opium answers most effectually; the scammony influences the liver and kidneys; the ipeacuanha relaxes the multitudinous pores of the outward and inward surfaces of the body, and the opium composes the entire nervous system. By these combined measures and effects large evacuations are produced of heterogeneous and prejudicial matters which, under the denomination of bile, and urine, and perspiration, respectively, are, under a natural state of things, willingly parted with by the wise economy of every animal being. Here too, a philosophy, an experience, and a mission are combined for public service, in demonstration of the powers of medicines in tangible doses, to remove the disturbing causes of our economy expeditiously and with certainty, and in this way to avert a host of ailments, which, if not averted, fall upon hip and joint, upon heart and muscle, or upon brain and nerve, in disastrous force, to add to the large category of female suffering, under the protean class of nervous diseases.

The experience of a "Physician for All" can confirm the above reasoning and practice, it also warrants him in his recommendation of the above combination of remedies which may be persisted in for several nights in succession, and followed up by mild cooling saline laxatives in the day time, until a slower and a softened

pulse and quieted body are the concomitants of improved excretions. Such an improvement and complete health may, in this way, be brought about, before even the imagination can be wrought upon by the lengthy, prosy, persuading practices of the credulity-mongers of the present day.

And I must further observe that, between the extremes of hysteric mania and the nervous twitchings of the deranged female constitution, a class of disorders is included, which involve every organ of her frame, and which make up a large library of descriptive history, though one organ in particular has incurred the blame and onus of the mischief,—from it, indeed, they receive their general designation, and to it the cause of their existence is assigned; if a “*furor uterinus*” exists any where, it is in theorists’ brains; nay! a “*furor corporeus*” has invaded the body-medical in referring these and many other complaints to “irritation;” though with all its irritations, the body without its fluids is a very passive thing. This mere envelope of ignorance, however, must be stripped away, before the irritating causes can be carefully perused; not but that these causes are known and well-discussed with a view to the dispersion of a Proteian Host, but they are estimated as effects and so misplaced in the table of the grouping phenomena. Thus the womb is regarded as the source and centre of irritation,—as the irritating cause,—it is on the contrary the irritated organ, and the entire series of organs both nervous and vascular that participate with it in function-pre-eminent partake also in its distresses. “Allay the irritation of the womb” is the general direction for the medical

treatment of hysteria, and so far as its local symptoms and condition are concerned, a benefit is obtained in following it; but this is a short way towards restoring the female constitution to that health, which has been deteriorated by a multitude of disturbing causes that fall so injuriously upon her nervous system. Moral and physical circumstances surround her at the very initiation of womanhood, such as prevail not with less civilized nations, nor with the animal races. They fall with force upon her blood, because they operate upon the organs which contribute to its formation, re-formation, and renewal;—upon the brain to wit as the great laboratory of the nerve-blood; upon the lungs, heart, stomach, liver, and other glands, and the skin, in their relation to the red-blood. No wonder, therefore, that some nervous affections are marked by a deadly whiteness of complexion, by a wateryness of blood, with palpitations of the heart, distressing sighs, shortened breathings, morbid appetite, bad digestion, back-ache, head-ache, weariness of limbs, and general enervation. Nor that other nervous affections should be characterized by a plethoric condition, in which there is redundancy of blood as indicated by their inducing a flushed face, a suffusion of skin, an hæmorrhagic tendency with spitting of blood, or with vomiting of blood, or profuse menstruation, or with other inordinate discharges, the unskilful interference with which brings on even more perilous evils, as fevers, inflammations, consumption, heart-diseases, dropsies and premature death; all which states and consequences I have witnessed in the long and wearying days of my experience, and traced them to derangements of constitution of blood by many physical causes. The

Same states and consequences follow also from numberless moral causes, with hereditary bias for their unhappy groundwork ; likewise from spiritual or religious causes for their lamentable beginnings. For the moral groundwork let me adduce imprudent associations, as resulting from ill-managed families and schools ; likewise excessive application to matters of dry science and speculative philosophy, which fatigues and exhausts the mental strength, its judgment, and equanimity. Likewise the unhappy home, where the parent's sternness or austerity, its ill-tempered manifestations, or its capricious bearing, affect the developing and delicately susceptible faculties of every degree with most injurious certainty. What a source of illimitable evil is all this ; the future becomes a degenerate race,—a generation of weaklings in moral and physical power. And what shall we now advance touching spiritual or religious causes of impairment of the growing female's constitution ? This is, indeed, delicate ground to venture upon, for the priestly office is deeply responsible for the right administration of its functions towards the softer sex. Woman cherished the Truth-impersonate ; she loved Him during its seeming death, in the tomb of its imprisoned influences ; in the garden of its re-appearance ; and as the source of its sun-like glories. Woman loving truth cannot but be affected by its power and by its perversions. How conscientious then should the priest be in the lessons he inculcates, and in the manner of their inculcation ; for his teachings fall on tender ground in the female mind and there perpetuate a legitimate or a spurious stock,—a family of useful truths or one of pernicious fallacies. The latter are alone to be dreaded, for of these come

pride, conceits of comparative worth, contempt of others, coldness of heart; the love of self for truth, the desire for personal admiration as its chief good and supporting life. It really is better that such women should drop into the madhouse, than be the means of propagating a race to follow their example.

*"Ætas parentum pejor avis tulit
Nos nequiores, mox daturos
Progeniem vitiosiore."*

Most true it is, that our asylums contain a large proportion of the religiously-deluded of the female sex, and equally true it is, that a large proportion also are mothers of families, who from their own mistaken views of truth and order, rear up their children with notions, or warpings of judgment, and with damaged constitutions of bodily frame, that call, as with the trumpet's blast, upon the consciences of all people, to awaken to their discriminating power of judgment between truth and error, right and wrong. Would that this were the "last day" of evil and falsehood, to be succeeded by a resurrection to life and light; for then the causes of our exhausting and deadening irritations would be retreating from the wide field of our observation. Our life's blood would circulate for the comfort, and not for the distress of every organ of the body-social; and we should not be accusing one another, but forgiving one another, for the good of all.

In the management of the nervous affections that have devolved to me, it has been a continued corroboration of the necessity there is for restoring the constitution of the blood to its normal or healthy state. As in all other general affections, whether inflammatory or

febrile, obstructions and congestions must be sought for and relieved as so many local embarrassments. The brain frequently presents its functions in exaggeration, or the reverse—in excitability to a morbid degree, or in torpor and apathy : in like manner the spinal marrow, which gives rise to pathological treatises of more modern date under the title of spinal and nervous irritation.

The states of the lungs, likewise, produce alarm by their irritable coughs ; some of which simulate consumption, and nourish quackery. The heart, also, has its fibre so irritable, and irritated by its acrimonious spirit, that it throbs tumultuously, and palpitates egregiously in excitement of fears and forebodings which tell of ignorance where it ought not to be found.

The stomach, with its subordinate range of efficient ministers in the work of digestion, will exhibit a scope of faculty almost beyond belief ; for it can be irritated to the relish of and craving for matters, as articles of food, of the most nauseating kind, or to the disrelish of and disgust for the choicest and daintiest aliment. Nay ! it will nauseate the presence of nectar as if it were bile ; and in nauseating bile, declare its own irritation at the offence of having the matters of its own rejection returned upon itself.

The kidneys also are liable to be irritated in sympathy with the rest of the body, and thence roused to the expulsion, by all their power, of the offending matters in the blood under the general nervous excitement which such matters have produced. The skin will be alternating in all the vicissitudes of temperature, of dryness, of moisture, of sensibility and torpor

that a feather will irritate, or the operator's knife penetrate without a flinch. All these conditions it is for the physician to be prepared for, and to reduce from a preter-natural to a natural state, as he can do by the appliances of his art; but failing in which, to be succeeded by the successful charlatan, is only to declare the fallacy and weakness of his views, and not the inefficiency of the means at his disposal.

In the case referred to at the commencement of this philosophical and practical disquisition—illustrations of every point I have adverted to, occurred; the nature of the malady was never more ostensibly declared than by the play of its symptoms, each of which was referable to the blood as its common source and cause, and as containing the essence and the matter for the physician to dispel of the whole series of derangements it presented.

And what must be said of those anomalous pains, of greater and less intensity, which occur in different parts of the body, as in the heel, the leg, the side, the arm, the head, or even in a finger, giving intolerable discomfort to the patient? Frequently have I brought these cases to a successful termination.

In the neuralgia affecting the temple and eye, to wit, —the hemicrania of older writers,—my practice is, to give a drachm of carbonate of soda dissolved in a tumbler of warm water, and to repeat it in an hour if necessary. This neutralizes a volume of acrimonious matters in the stomach, or in the blood, or that are contaminating the albuminous fluids which are moving to and fro throughout the entire interstitial spaces, and which make up a vast reservoir, so to speak,

that the modern pathologist has overlooked. From this reservoir, however, a drain is established when a blister, or any other vesicatory is applied; and when a mustard poultice is in operation to relieve a local pain more than counter-irritation is at work. Nay! the very lubricating fluid which is within the sheath of the superior maxillary-nerve, may be charged with an acrimony which frets every terminal twig to the production of the dolorous tie. To saturate the blood, therefore, with an alkaline carbonate, or with the more diffusive hartshorn, is a useful measure,—let this be followed by pills, consisting of calomel, colocyth, scammony, and compound soap pill, in doses of two grains of each, at bed time; and assisted by a mixture prepared with Epsom salts, magnesia, peppermint water, and diluted prussic acid, in doses suited to the age and strength of the patient. If this mixture is exhibited at intervals of four, or six, or eight hours,—and persisted in without hesitation, till all black, green, or brown coloured discharges cease to be given forth from the bowels, then will the pain be diminishing and comfort of body returning of a certainty.

Such a medicine will sound very unpalatably upon refined ears; but, as I am for relieving my patient in six hours instead of six days, I do not heed the “*traitement expectant* ;” and, besides, my sympathies are with the sufferer, and not with a theory which would supersede experience at every hazard.

Valerian also proves a most excellent remedy in the milder forms of these complaints, as I have repeatedly experienced, let the neuralgia be seated where it may. I mostly prescribe it in the form of powder,—half a drachm

of it with five grains of cinnamon powder, and five of rhubarb, every six hours ; and when I suspect a surcharge of acidity in the alimentary canal, or in the fluids which rush into it at the bidding of any purgative, I order a full dose of calcined magnesia with the sulphate in spear-mint water,—half a scruple, to wit, of magnesia, and a drachm and a half of the sulphate of magnesia, in an ounce and a half of the mint water, to be repeated every four or six hours, till very free alvine discharges follow ; nor do I hold my hand here,—till the bile is given forth from the liver of a bright yellow hue. Practice receives so much confidence from experience, that it honestly supersedes the brazen impudence which takes the chance of passing current for sterling coin.

I am now reminded of the case of a celebrated auctioneer, in this metropolis, who was of a nervous temperament and liable to *tic-doloureux* in his leg. I have seen him rolling on the floor in an agony, with perspiration dropping from his temples, and relieved him in half an hour, by a mixture which consisted of half a drachm of powdered valerian, one drachm of compound tincture of valerian, one drachm of the spirit of cinnamon, and ten drachms of water, for a dose. This prescription the patient, as he frequently told me, valued as an equivalent to a hundred pound note ; but as the fashion is, when the *ei-devant* sufferer is visited by a perilous or a fatal sickness, the popular doctor is sent for to introduce to Charon with all the honours. This gentleman was eventually seized with great prostration of muscular power, the consequence of insidious or initiatory disease of the muscular substance

of the heart. The concomitants of this affection, are a host of organic ailments, such as the theorist and specialist apply in support of their own views, and from which they derive a large share of their emolument. After all, the patient has run the gauntlet, and a flabby, attenuated heart, proves to be the chief organic mischief. Morbid fluids, however, are the essence of the deteriorated frame, and the whole organism is engaged in removing them from place to place, at length to fall destructively upon vital organs where conscious volition has no sway.

These neuralgie affections, moreover, are very simulative, they frequently appear to be what they are not; the medical man is so aware of this that he makes light of them, and sometimes commits an error for which he never receives forgiveness. "Oh! it is only nervous," is the too common designation of an anomalous complaint; instances of the latter view have fallen under my notice, and a grievous *tie-doloureux* has set in to be the precursor of irremediable lunacy. So great was the pain endured by a valued friend, a judge's clerk, in one of our law courts, that he has pressed a large hot mustard poultice to his abdomen, and walked about the apartment as if it were a lulling opiate. This excellent young man ceased to suffer under neuralgia, but gradually became the victim of delusions, which a physician of the mercurial school ushered in, upon his treatment of the disorder as if of an hepatic origin. He died in an asylum, where he was supported for years by the contributions of a few heads and ornaments of the legal profession. Here mercurial oxides tainted the blood not only to the point of high salivation, but to its irre-

trievable vitiation, and it was beyond the power of the salivary glands to divert a stream of impurities from the cerebral region.

Mercurial oxides are for the most part hazardous remedies in purely neuralgic disorders: these disorders indicate a bad condition of the nerve-blood, or of its subtle constituents. To an ignorance of the existence of this fluid, much more of its nature, must a "Physician for All," ascribe the frequent mistakes which inculcate the profession and justify its invasion by other arts. Thus when medical men of great repute invariably prescribe a mercurial remedy as the basis of their curative pretensions, it must not be wondered at that some patients are injured rather than benefitted by their practice: or, when others can only view pain as a sign of inflammation, and treat it accordingly, and so aggravate it, the patient loses confidence in legitimate practice, as it is called, as a matter of course; he then forsakes it and finds relief from some tonic, stimulating, and cordial elixir. His praise of the well-advertised article, naturally introduces it to other sufferers from pain, to be followed by a fatal mischief, perhaps, through sad inappropriateness of it to the particular case.

I remember a consultation with an eminent surgeon and a general practitioner, both of a certain great medical school, upon a case of decided neuralgia (hemicrania) which they had been treating by leeches, blisters, and calomel. It was regarded as a membranous inflammation, by reason of morbidly acute exaltation of sense. With opposite diagnosis, therefore, it devolved upon me to prescribe;—a physician, young in experience, but

testing his judgment by a remedy despised by older heads, that is to say by valerian, was a trial of his independence in view of a charge of presumption ! The first dose alleviated the suffering, and led the way to health ; the preceding treatment did no positive mischief, but probably expedited the benefit accruing to the subsequent measures.

Many local pains also that follow upon sprains and fractures, resist the treatment that is frequently based upon the idea of their being of an inflammatory character. The patients get weary of legitimate practice at the hands of the qualified practitioner, and away they go to the manipulators, the rubbers, the *douche* men. Here they find relief, because measures are resorted to, which remove obstructions to a more subtle circulation than that of blood through capillary vessels ; for an obstructed circulation of the nerve-blood is pain for the *sensorium commune* to complain of, or paralysis for the same sensorium to be conscious of, or apoplexy for it to labour stertorously under. So that pain, numbness, and corporeal oppression are indices of obstructed animation, arising as these several states can do from causes innumerable and perpetual, from such as are inflammatory, or congestive, or oppressive, and of general or of local influence.

Reflecting on these things, and on the satisfactory manner in which very urgent cases of hysteria have yielded to my treatment, based as it has been on the principles I have enunciated, I cannot but protest against a spirit and a practice which are but too common in relation to the profession. This protest is recorded for the sake of the good it may do, and not to gratify any per-

sonal feeling. Not unfrequently has it been reported to me, by the friends of the sick, that I should have been called in but for the remark, "Oh! he is not a lady's doctoor:" or, "Oh! he is a lady's doctoor,"—and the opposite instances once happened on the same day: and many other similar observations, which could not but be injurious to any Physieian, however high his position or extensive his praetice. The object of the Physieian should be general utility. For myself, in attaining it, as I have not been influenced by the professional crowd, I have been enabled to perceive the bearings of its movements; its waywardness of doctrine, and its short-comings. Its bearing is too much upon one centre,—for a monopolizing spirit actuates it to obtain popularity and a "*swinging*" praetice. Its waywardness of doctrine is apparent both in its periodical literature and in its elementary and other publications. Its short-comings are obvious in the lack of mutual support, in its ready competition, and in the reasons it furnishes to the community for undervaluing its services.

In realizing the object, I have never lost sight of my professional life or its duties. When called upon to take the Harveian Oratorship for 1851, I did so most willingly, and propounded such views and principles as are worthy of all consideration, for they strike at the root of quackery, and expose the undefinable terms which mystify our art. I afterwards undertook the delivery of the course of Six Lectures on *Materia Medica* at our College. In these lectures the principles of the medical art, with reference to the animal economy, are propounded, and they challenge the utmost enquiry. They cannot be beneath notice, when the editor of the *Psy-*

*chological Journal** speaks of them as “a work which, in his apprehension, surpasses in importance the many other able works that have recently issued from the English press on the subject of *Materia Medica*,” and he admits that I “have devoted much time and labour to the composition of the lectures, which have resulted in my having produced one of the most philosophical essays on the subject of *Materia Medica* existing in the English language.”

I do not adduce this testimony from any feeling of self-complacency, but of self-justice, as a candidate, in common with my professional brethren, for public confidence; for I cannot permit my professional pretensions to be frustrated by unjust and injurious comments, but I wish to have it known, that I, in common with my professional brethren, am a candidate for public confidence relating to sanitary measures for public and private health, although I feel I may subject myself to that class of observations which too frequently arises from sinister rather than from honest motives, and which has in former times chilled and blighted the interests of greater men in their career of discovery and improvement.

It is a good time to exorcise such a spirit from the public mind, in order that its progress may not be checked and thwarted for so long a season as history instances; and that invention, or originality of thought, shall no longer be treated as if it were the demon of innovation, or an angel of darkness.

To experience and to observation for the healing of our bodily ailments would a “Physician for All” appeal,

* Dr. Forbes Winslow, No. XXV., January, 1854.

even as the Prophet appealed to the Law and the Testimony for the cure of our spiritual diseases, instead of seeking after those that "*peep and mutter.*"*

My view of the existence of a fluid which I have designated the nerve-blood, in substitution of the animal spirits of older writers, springs from my freedom of judgment on the subject. This nerve-blood is more to the body than the arterial or coloured blood of sensuous observation, for the latter would be nothing without it, even as the muscles and glands would be powerless without their nerves, or even as the nerves themselves would be senseless and devoid of influence, unless such a blood permeated them every where to impart to them of its own active nature. Call it the vehicle of sensibility, irritability, mobility, vitality, action, or force, or what you will ; if it eludes ocular sense, its organic productions and its sanguineous manifestations do not : these begin in translucent fluidity, and only become visible by density and composition ; but fluidity is the permanent circumstance and even the essential of mobility and vitality ; and, in this fluid condition, the vital forces are ever operative which commence with the primordia and initiaments of fœtal existence and growth.† For the nerves it is nerve-blood ; in the blood-vessels it is compounded into red-blood ; its nature and power are resemblances of its parent source, and its tendency the world of nature cannot own, because the world of life is ever asserting its higher claim upon it as the fitting instrument of its intelligent purposes. This tendency, indeed, is the prime characteristic, and every science, with every art, conspires to further and to secure

* See Isaiah chap. viii., v. 19, 20.

† See *Six Lectures*.

its object, which is the preservation of the species. This nerve-blood is every thing every where in its body ; the body owes every thing to it, beginning, continuation, and renewal ; its materials with those of the body are perpetually changing, but tendency, nature, power, and form remain the same. Identity also is hereby secured, despite the changes of disease and decay, and every human individual can say, "*I am*, therefore I think," rather than with Stahl, "*I think*, therefore I am." For this nerve-blood to be an instrument in nature of such a principle as will, as the ground of a finite consciousness, as a relative, "*I am* ;" it must be compounded of the purest and most subtle elements of the world of nature. Nor need we rise on airy wings to touch these elements with imaginary sense, and measure them with ideal instruments, for enough is known by experimental observation, to answer for a foundation to an eminent superstructure. Even the electric and magnetic phenomena which whirl their wiry way, conveying mind to mind in emulation of a spirit-world, unseen, unheard, but not unpereceived by the rational sense, stand intermediately, as it were, between such a nerve-blood and the denser components of the body ; and not electric and magnetic facts alone substantiate the existence of this nerve-blood of universal application, but gaseous matters of laughter-stirring and of sense-depriving power, or of invigorating or enervating virtue, such as ozone and carbon, play their respective parts ; and medicines in the guise of deadly poisons, will also expel from this nerve-blood, other poisons of its own engendering, and of self-perversion, to say nothing of the ocean of exhalations constantly escaping from it, through interminable expiring pores from whence come pestilential fevers, the specific odour,

and the strangely interesting circumstances of canine sense, that distinguishes the master's footway from among a crowd of other men. Nor are skin diseases or its functions lacking, in proof of our resuscitated doctrine—or why should an animal die comatose when its skin is painted over with some impermeate material,—or, the same, when extensive burns destroy this nerve-protecting envelope? Such injuries preventing both the escape of a volume of impurities, and the admission of subtle nutrient elements.

Given, therefore, these positive facts, and the positive knowledge of the tubular structure of nerve; for the demonstration of which I have waited most patiently many a weary year; the existence of a nerve-blood is undeniable, its nature also is determinable by its productions both sanguineous and organic; its qualities also, for they constitute the distinctive characteristics of every animal being, “for all flesh is not the same flesh,” &c.; and its beginning is antecedent to blood and its vessel, seeing that these are only the media of its own multiplication and progression.

Such composition, or aggregation, or density, or materiality, as pertains to the blood and its derivations, receives the vital force as an influence, and it is only by the analytic method that this force is rationally discernible as an operating agent in the fluid and fibre to which all animal composition is reducible. The difficulty is, to conceive how a fluid can be a vehicle of force, with its tendency or determination, as a permanent nature and quality; but if the growth of the chick in the egg, or of the fœtus in utero, be well considered, our conception of the fact will be clear and well defined; for it must be evident that the engender-

ing fluid augments with the embryonic augmentation, and determines a course of action, by and with its own fibrous and vascular determinations, conformably with its nature, so that the entire product is a type completed of its every inherent faculty and quality, and consummated only when it can reproduce the species as an evidence of its vigour. Such a fluid is, therefore, naturally animating and vitalizing as well as engendering: it is invigorating and strengthening also; and brain, and nerve, and muscle, are the instruments and manifestations of its power. No wonder, therefore, that great losses of blood, as an engendered fluid, and its disorders also, should fall inevitably upon these organic instruments to supplant their strength by debility.

No wonder that races, like individuals, should be remarkable for their heroism, or courage, or virtues, and for their timidity, or cowardice, or vices; nor that nations should rise or fall with the soundness or unsoundness of the principles by which they are actuated. Of all the principles I have studied, however, the Christian are decidedly the most humanizing and evangelizing, though such results are only to be consummated by practice, rather than merely initiated by faith; on the practical bearing, indeed, of their inculcation, rests all the responsibility of this religion; less than this is but "as sounding brass and the tinkling cymbal," for Christianity and selfishness are as opposite to each other as heaven and hell. Nor are we to wonder at a single individual sometimes appearing to stem the rising tide of evil and error, despite the discouragements of persecution on every side: even as we may take for instances, certain results of the imperative mandates of a soul that aspires to the glory or

the pleasure it anticipates from the achievement of some great national good. "What power," Cicero asks, "supported Horatius Cocles to stand alone on the bridge against the whole host of the enemy?" And, again: "What end was aimed at by those two bulwarks of the Punic war, Cneius and Publius Scipio, when they thought to have excluded the Carthagenian hosts solely by the barrier of their own single persons?" Blood, truly, is the expression in fullness, of nature, quality, stock, or breed, because it, though fluid, contains them, and communicates them to its organization.

The late Sir Astley Cooper took a philosophic view of the animal economy, when he regarded the innermost coat of the arteries as giving forth a vitalizing fluid to the blood; for tracing the arteries to their capillary terminations throughout the body, it is evident that the efflux of such a fluid must be constant and in immense abundance: it would be a blood-spirit in the blood, and nerve-blood in the nerves, and so accomplish a more universal circulation than that of red-blood. Thus the arteries of the pia-mater would deliver their blood-spirit into the *vesicular portion* of the cerebral masses, and this would deliver it to the *fibrous* portion to act the part of nerve-blood. If this be so, in the most general terms, a unity, as prevailing among the infinitude of parts making up the body, is perceptible; seeing that they then are all animated by one spirit, even corporally speaking; and, further, that its eminent properties and characteristics, as a material agent, fit it to be the vicegerent of idea or of mental operation, as the essential of its force, determination, and so on.

That idea is annexed to it, or acts upon it, is plain, from the plan pursued in the process of formation, and afterwards in that of growth and preservation, all which declares design, or purpose and use. This blood-spirit, moreover, or nerve-blood, from its inherent force, naturally communicates power or strength to that which contains it. In the foetal state, this power is embryonic. In the period of infancy, it is infantile, but essaying action. In childhood, it is forcibly active, and playing a game with strength. In youth, it is strength struggling for puberty. And at puberty, it is strong power, masculine or feminine, according to the gender or beginning of the species; or conformably with the engendering force. I have often asked myself, indeed, whence comes our strength? It is not from outward nature; for while nature, externally, may be auxiliary to it, yet frequently it exhausts and enervates us. That *vis a tergo*, about which physiologists speak so much, must be identical with the *vis ab initio*, which is neither electric nor magnetic, but vital, as has already been pointed out. Even conscious volition, is but an auxiliary circumstance to it; for with the utmost desire of the will, how weak we sometimes are; or, with the absence of volition, how strong a convulsion may be. Vital dynamics are an enlightening study, by reason of their connexion with mental operations, whilst material things with all their strength are quite immaterial in the comparison. Nay! they are most subservient when most auxiliary; and if electricity lends its aid, or apparently resuscitates a corpse, the muscular movement is a convulsion, and not a mental determination. The subordinate agent acts, more-

over, upon the blood-spirit and nerve-blood, and not upon the nerve alone. Seeing that in a very short space of time after death, the galvanic influence works in vain, although the nerve remains wire-like in all its substantiality and visibility; the vitalizing fluid has fled forth from the nerves, and it is only influenced in the blood, whither it has fled, so as to destroy the natural coagulability of the red-blood. And now it may be understood, how sudden mental shocks, as well as electrical, and even how a corporeal shock, as a blow on the pit of the stomach, and also how our quickly destroying poisons, will produce this extraordinary effect.

This blood-spirit is the material that is acted upon by the malarious exhalations and contagious miasms which so quickly enervate the frame. These invisible and imponderable poisons oppose its force and prostrate its strength, debilitating every muscle and dis-jointing every articulation. Well, therefore, may the debility be met by stimulants: as by heat, by electricity, by volatile matters, &c., to produce reaction; or, inevitably will the broken up continuity of the blood let go the streams of serous matter, which distinguish or characterize an invasion of cholera,—such fluids becoming instantly, themselves, prejudicial and *effete*, and, therefore, are cast out. So that the amount discharged is not the cause of death, as a hæmorrhage would be, but an expression of the extent of the damage done to the blood. This reasoning brings to my mind a subject of water-brash, who has, on several occasions, been my patient, when he has discharged many gallons of liquids, far exceeding in quantity what I have seen escape from one under fatal cholera. His last attack was only a few

weeks ago, at the age of seventy-three, when it appeared in a more formidable way, because the profuse discharges, instead of being clear and watery, were like coffee-grounds and water. His pulse was thread-like; his pallor deathly; his debility, except of voice, extreme; and yet he has recovered by the help of aromatic confection and laudanum, and of cold collared eels and orange jelly, for his nutriment. In fact, there appeared to be no ray of hope, except what his clear state of mind and strength of voice supplied to me. His arteries and heart must have contracted to the smallest amount possible of dimension, to convey the little blood they contained, and, as I remarked to his skilful medical attendant, he seemed to live more by the nerve-blood than by the red-blood. The day I took my leave, however, he had enjoyed two mutton chops for his dinner, as an earnest of the rapid replacement of red-blood. As we reflect upon these things, we cannot but be impressed with the conviction that our corporeal world is circumstanced as the physical is, in having invisible and imponderable influences engaged as the sources of its existence, power, and movements; but the corporeal frame admits of being moved from a deeper ground than a merely gravitating force to one centre; because we see all its elements forced into directions answering to a mental plan, idea, or design. With this idea, volition may be in unison, or it may not. In brute animals it is so, and constitutes their instinctive life. In man it is so in like manner, as far as his *capability* of volition is concerned, which is maintained for him whether he be conscious of it or not; but as touching his conscious volition, this begins in the densest ignorance, and pro-

ceeds to the utmost responsibility. For capability of volition he is indebted to the blood-spirit every moment, seeing that, by its instrumentality, he is as he is. Its organic efficient is brain and nerve; its fluid vicegerent is the red-blood, whose proper organic efficient is the heart and blood-vessels; the latter and the former make up the body, such as we possess for conscious determination, and, likewise, for the capability of willing in freedom, or, in any way we choose. But this body, as we well know, loses strength by action, it therefore needs repose to recruit it: provision is made accordingly, and strength is enjoyed in the morning of our every-day life as a result of the rest, by balmy sleep to our faculties of consciousness. The period of rest to these and to their muscular cohorts, is not one of repose to the cerebellum and all its dependant nerves and structures, for they are all busy in the hush and lull of disturbing will and rustling thought, with their craving necessities and exhausting actions, good or bad, as they may happen to be. In the time of sleep, the force-formative continues its work of order unopposed; its strength works for a gradual restoration of power to every faculty; its animating spirit is reviving its renewing and regenerating blood; and "man is being prepared to go forth to his labour," if he will, a steward of his Creator's bounty.

I cannot refer to the daily exhaustion of our strength, without recording an instance of such exhaustion, terminating in death as a final sleep, instead of in sleep as a temporary suspension of conscious life for the welfare of the body.

A tradesman, who resided at Islington, was so much

harassed by the cares of business, that he became decidedly ill : the symptoms were anomalous, and induced his usual medical attendant to take my view of the case. His mind was evidently disturbed. It was useless to persist in medical treatment whilst under the influence of his disturbing causes ; he was, therefore, recommended to spend some time at Margate for the sake of change of scene and air ; but he had not been there many hours before his mental condition became worse. A state of terror at an imaginary fiend in pursuit of him to his destruction, came upon him, which drove him away from Margate, back to Islington, at his utmost speed. He ran the whole distance without rest, and arrived at his own home about 5 o'clock in the morning. His exhaustion was so complete that it involved his entire rallying powers, even to include the muscles of deglutition, which let his lower jaw sink, with his every other bodily power, never to rise again. I saw him a few minutes before his decease, when nothing could be done to restore animation by any outward stimulus. What a dreadful night must that have been to this terror-stricken man ! His volition was aroused to self-preservation by visionary fear, by ideal phantoms, by an unreal image. All the higher intellectual faculties of comparison, reflection, and judgment, were powerless upon his will : a morbid state of his imagination alone ruled ; the great main-spring of action ran down unchecked upon every corporeal wheel ; the instruments of regulating adjustment, and of all necessary equilibrium, (the cerebellum and heart to wit,) lost their control under the wildly impulsive passion, and so gave up their order-inspiring spirit. There was

no longer nerve-blood for the nerves, nor blood-spirit for the body. The vital powers were irremediably expended. The debility of death supervened, though a body of powers remained for those of nature to resolve, or for those of chemistry to analyse.

And now that I am on the question of our strength, whether vital or animal,—since this may be prostrated by mental, as internal causes; and by physical, as external ones, alike,—I must advert to disease as a very common inroad upon it, under the appellation of debility. In this state of the constitution, the discriminating, the practical skill of the physician is most imperatively requisite: his confidence, his courage, his respect, both for himself and his profession, are equally necessary also. For his knowledge of disease is tested as he measures the degree of its opposition to the healing influence of the formative force he is relying upon, either to prognosticate the issue or to determine the course of treatment. Many diseases induce debility in substitution of strength, almost on the instant. Pestilential fevers, choleraic seizures, and the like, do so. They sometimes establish the collapse of death, even to the destruction of the coagulability of the blood and stiffening of the dead body, to be followed by most dangerously rapid decomposition. If reaction takes place, it must be observed both as to its amount and duration, and so must the phenomena that subsequently present themselves;—for sometimes hæmorrhages, alvine discharges, perspirations, or vomitings, will occur, which it would be perilous suddenly to counteract.

The dread of debility, operates not unfrequently upon the minds of doctors and patients. Nature's

operations are then interfered with, and recovery much protracted. If a strong firm pulse and hot skin exist, conjointly with a quiet respiration, such interference is not justifiable: rather let the discharges proceed; or if they do not exist, they must be brought about by art, and the measures of art for the purpose must be persevered with, till the state of the pulse and the heat of the skin become natural.

The undisturbed respiration is the ground for the physician to stand upon, and, indeed, to work from. Respiration is a function which imparts great constitutional strength: it embraces a multitude of important processes for the body's weal, and when invaded, the safety of all besides is endangered. Here, in such an event, must every attention be given, for if inflammation attacks the first air-passages, or the substance of the lungs, debility will be a most prominent circumstance and a most dangerous symptom. In short, in whatever way debility invades the lungs as a primary affection, the debility of the rest of the body is its imminent peril; and if an inflammation is the primary affection it must be met immediately by suitably active measures, even by free abstractions of blood; the omission of them would be fatal, and, therefore, very reprehensible.

That debility of lung, to be met with in the choleraic state, and which is so unmistakeable in the peculiarity of the voice, arises from other than local causes: these causes are more general in their operation for they establish themselves in the nervous and sanguineous systems almost instantaneously. The fact is, respiration is a great adjuvant to the diffusion of the nerve-blood throughout the body; for every nerve that proceeds from the brain

and spinal-marrow is affected necessarily, because mechanically, by every respiratory movement; the cold tongue, and cold blue skin, with the whisper, tell us of deteriorated fluids debilitating vital organs, to the destruction of their auxiliary power. No clearer instance of this can be given, than that of a boatman on the Serpentine river, in Hyde Park, who left the Receiving-house to ferry a person across to the other side, and then admitted into the boat another person to return with him; but during the interval of this short passage, he was seized with cholera, and removed from the boat quite powerless, to be immersed in a hot bath, which is always in readiness there. It took many hours to revive him by the aid of the bath, of volatile medicines, and diligent frictions. In this manner, however, the patient was restored by the "first intention," so to speak. It would have been fatal to administer purgative medicines at the onset of this seizure, though they might subsequently have been indispensable. The seeking, indeed, for specific remedies, or for one plan of treatment, in all cases of cholera, is the *opprobrium medicorum* to meet a scourge which baffles the highest art, as well as the lowest charlatanism.

Not unfrequently I have had to disregard the prejudice of patients and friends against the continued use of purgatives; the fear of debility has been the foundation of the prejudice; but the purgatives have been persisted in nevertheless, and the patient's strength restored as the real sources of debility have been removed by the purgation. Under the plea of debility, many a life has been suffered to depart, which might otherwise have been prolonged; and as the reverse of

this may also be sometimes the fact, it is the more apparent that practical skill, based upon long experience is an essential qualification for a "Physician for All." So true is it, indeed, as the late Dr. Baillie has observed, "That the most successful treatment of patients will depend upon the exertion of sagacity, or good common sense, guided by a competent professional knowledge; and not by following strictly the rules of practice laid down in books, even by men of the greatest talents and experience. It is very seldom that diseases are found pure and unmixed, as they are commonly described by authors; and there is almost an endless diversity of disorders. The treatment must be adapted to this mixture and variety, in order to be as successful as circumstances will permit; and this allows of a very wide field for the exercise of good common sense on the part of the physician. A physician who should be guided strictly by the rules laid down in books, would be a very bad practitioner" (*Lectures and Observations on Medicine*, p. 163). These observations are most applicable to the management of cholera; and if they are acted upon, the mortality, from this disorder, will be less than it would be upon the adoption of one uniform routine of practice, as laid down by some arbitrary and popularity-seeking individual.

To return, however, to the fluid medium, in which a vital force, and its derivative strength, as vital dynamics and animal power essentially, are contained, and indeed to the blood in its widest acceptance; it cannot but be admitted that the considerations which have been advanced are necessary to the better comprehension of the constitution of the blood, and also to

that of the nervous system and its innumerable affections.

If they are not estimated now, they will be at a future period; for man, with all his self-satisfaction is progressive, despite his rude reception of the ideas that are foreign to his education. To make myself more intelligible now that the existence of nerve-tubes is an ascertained fact, I may state that these tubes contain and convey a fluid which is their antecedent in the order of formation. They are therefore its determinations, and consequently determined in conformity with its force, nature, quality, and character. Order, plan, or idea is predicable of this fluid with its inherent force, and the product, as a whole, is conformable thereto. As is a race, even so it is perpetuated—as is the stock so are its individuals, and *vice versâ*. As is the fluid and its nerve-tube, so are the innumerable complications of the latter which make up the brain and nervous system, and ultimately so are the heart, blood-vessels, and body. Here, indeed, the nerve-tube is as the thread out of which the fabric is woven, though it is more than a thread or a wire, because it is a continent of the force in fluid form, from which itself is derived.

This brings me to consider the character of this nerve-blood, irrespective of its force and influences, and of its fibre; it must be most eminently fluid, perfect, divisible, mobile, modifiable, elastic, volatile, and free. It cannot be identified with electricity, for the laws of the latter are amenable to its requirements, at the same time that, in excess, they are destructive to its composition, qualities, and existence; in testimony of which we have

only to bring to mind the wonderful effects of galvanism on recently killed animals, and of lightning on the blood in preventing its coagulation, &c. It cannot be identified with magnetism, though Mesmer and his disciples work out their marvels upon the supposition; it nevertheless stands in a controlling relation to magnetism, because it avails itself of its laws co-ordinately with those of electricity to effect its archi-chemical operations. Besides magnetism exhibits unvarying phenomena, and constantly similar results; whereas, the dissimilarity of the products of animal life distinguishes them from every thing else, as well as, from each other. Electricity plays freely around spheres and points, whilst magnetism works on surfaces and in elliptical gyres; both may thus administer aid to nerve-blood and to our subtle organization imparting form, and pressure, and support, according to *their* respective forces, even as the outward atmosphere presses upon our bodies in security of their figure and right dimension, or even as the gravitating force urges all things towards one centre to produce roundness and cohesion. Again, as the air contributes nutriment also, (for I regard oxygen as such,) to the red-blood, so can these more subtle media serve as vehicles of the volatile parts which enter into the composition of the nerve-blood.

Chemists have shewn a similarity of composition existing between the brain, spinal cord, and nerves; water, albumen, fat, osmazone and salts, and phosphorus, existing in slightly varying proportions in each, it may, therefore, be inferred that the nerve-blood from which these matters are derived, is in part constituted of them also. It is fair, indeed, to conclude, that what the containing

fibre consists of chemically, that the contained fluid supplied. It is so with the red-blood and its vessels; nor is it any available argument against our conclusion that we cannot see a fluid traversing the nervous fibres. We know, because we see these fibres and their compositions into masses and cords; we analyse these masses mechanically to their primitive fibrous structure; we perceive and admit the amazing minuteness of each fibre; we must, likewise confess that it is by the multiplication of such fibres to an immense multitude, that a corresponding multitude of channels is provided for the conveyance and distribution of such a fluid; and that with this, a universality of its presence is given as well as of its every property, whether of modificability or of mutability of state.

Thus nerve and nerve-blood are present in every the minutest capillary vessel, muscular fibre, membrane, duct, and pore. Here they are co-efficient, or act together, in influencing all the more compound structures and organs which we call cerebral, respiratory, digestive, glandular, or reproductive; the consequence of this, is, that innumerable causes conspire in every organic action, to render every effect more certain, and thus to inspire all with the same spirit, unity, and nature. Given, therefore, the universality of fibre and its appropriate blood, there exists a co-efficiency between them which renders the phenomena of direct and reflex action intelligible: the fibre is acted upon by its fluid and re-acts upon its fluid, so that the whole volume of the one and the entire compages of the other, are simultaneously affected, either from extrinsic causes as from the physical world, or from intrinsic causes as from a mental world.

Given, moreover, this nerve-blood and its fibre, we can understand how nervous disorders affect the body in the extraordinary way we every day witness. Mental hallucinations, delusions, perverted volition and sensation, antipathies, uncontrollable impulses, disturbing thoughts, false imaginings, groundless fears, melancholy, hypochondriasis, chorea, and a host of other cerebral and nervous ailments, are so many affections of this fluid and of its containing fibre. These affections may occur from internal, or from external causes;—as from vitiated blood, on the one hand, when it is delivered over from the pia-mater into the vesicular substance of the brain at the commencement of the fibrous compages; or from such, on the other hand, as are denominated mental, by reason of the rein being given to the disorderly appetites and passions; or from external causes, as wounds, pressure of tumours, mechanical interruptions to the circulation, and so forth. I will, furthermore, adduce the phenomena of epilepsy, catalepsy, torpor, cramps, convulsions, paralysis, apoplexy, atrophy, and the like, whose modifications would store a library to detail, falling, as they do, upon the instruments of volition and sensation. All these states are dependant upon the agency of the nerve-blood more especially, and are so many interruptions, in fact, to its force, influence, and power; tending, as these do every moment, to recover their equilibrium, their nature, and their healthful sway. All the above unhealthy circumstances admit of attempts at removal by the Physician's skill.

This reasoning receives illustration from pathological experience at every turn, and under every circumstance;

for whether the disorders just enumerated are to be combated, or others of another class, they furnish documents in common, that demonstrate the existence of the nerve-blood, together with its multitudinous properties, which bear subordinately on its great principle of conservation, and to which all the operations of preservation constantly stand in wonderful relation. Thus whether we speak of heat or cold, dryness or moisture, chemical affinities or actions, mechanism or geometry, electricity or magnetism: nay, of any, or of all the sciences, nothing is too great, nor too insignificant, to be subservient to its preservation, and, therefore, nothing ought to escape the Physician's observation.

Leaving, however, the high places of philosophy, let me apologize for the perilous ascent, and make the best compensation I can, by working usefully in the wide, but precarious, field of common life.

In illustration of my views I will adduce the power of cold in arresting hæmorrhage. Here we are very anxious to effect our object quickly. To this end we make a sudden, or a continuous, application of it, in some form or other, say of ice, to the surface of the body, when an internal hæmorrhage is arrested. A lady of fashion met several others to partake of a luncheon and enjoy a drawing-room concert afterwards: she was seized with a bleeding from her nose, which brought into requisition almost every towel in the house. I happened to call at the time and immediately sent for a lot of ice. I put a quantity into two plates, and desired her to keep her hands upon it. The sense of cold was quickly communicated with its contracting effect to every part of her frame ;

it soon contracted the open orifices of the capillary vessels lining the surfaces of the nostrils; because it contracted the nervous fibres which entered into the composition of the capillary vessels, and so dispensed with the necessity of the mechanical plug which is frequently and successfully resorted to.

The application of a cold key to the back, acts also upon the same principle of universal sympathy.

I was not long afterwards requested to visit a patient fifty miles from town. The telegraph communicated that his complaint was a spitting of blood. I took with me, therefore, a few pounds of ice, and in a short time he was grasping a quantity in each hand, and losing the cause of his apprehension of peril. He, in fact, had no return of the spitting of blood. In these cases, the state induced on the palms of the hands by the ice, traversed the entire framework of nerves and capillary vessels: all was contraction correspondently, and the desired object secured in another locality. Again, I was in attendance upon a lady who had been reduced to great peril by large losses of blood at the period of the turn of her life, as it is called. I had no reason to suspect the existence of organic disease in aggravation of her danger. Astringents of every kind had been resorted to with but little benefit. I happened to be present when the fatal gush was apparently at hand, for the horrid pallor and ghastliness of death dismissed every ray of hope. I instantly poured upon her a large quantity of cold water from a height, in imitation of the shower-bath,—the bleeding was arrested, and, upon the employment of restorative measures for several months with great circumspection,

she was restored to good health. In this case the sudden application of the cold water contracted every capillary vessel, because it contracted every nerve-tube that entered into its organic composition.

Some American writers have given strong testimony in favour of emetics in alarming hæmorrhages. Emetics act powerfully on the nervous system,—influencing it generally, as they do the stomach specifically. The like observation applies to the action of our best styptic remedies, and especially to the influence of the acetate of lead.

Sudden impressions made on the nervous system by other means than the application of cold, will arrest hæmorrhage. In proof of which a case occurs to me, where a young woman was surrounded by her mourning relatives, because they thought her dead from a fearful loss of blood. She looked like a corpse on the bed. I struck her lips with two of my fingers smartly : a heaving up of her chest followed ; she breathed, and brandy was in requisition to rouse the nerves of the tongue and palate ; then the nerves of reflex action of the gullet and stomach. The stimulus, in unison with the great respiratory movement, pervaded the whole nervous system, and acted on the co-efficients in the re-animating work,—that is to say, on the fluid and its nerves, and in this way a life was saved by an opportune fillip of the fingers.

Physiologists take different views on these matters ; but pathology could impart unity to their minds if they would look fairly at its evidences. A rational analysis of the composition of organic materials would shew how nervous disturbances produce the flush, the suffusion,

the congestion, the ruptured vessel, from which come hæmorrhages, as well as the effusions productive of apoplexy of brain and lungs, that even emperors are amenable to.

Doubtless many of our astringent remedies act upon the principle, of the universal sympathy of the nervous system as depending upon the nerve-blood by which it is traversed. Thus alum, nitre, sugar of lead, catechu, and many other articles operate by coming in contact with the lining membrane of the stomach and bowels, and even with the internal surface of the blood vessels, and so affect the delicate nerves there; the affection is then communicated correspondently to many other parts of the body, imparting a state to them, as if the affecting body was present there itself. This, surely, must be the reason why acerb matters on the palate, will produce a horripilation, or why a grievous local injury will be accompanied by a horrid shivering fit; and why incipient severe illnesses, as ague, or fever, or inflammations, are mostly ushered in in this manner; and, again, why the formation, and deposition of purulent matters are often indicated by chills and rigors.

As I have said before, touch where you will with the finest needle's point, and nerve is touched, and its traversing fluid is correspondently modified; this modification is communicated to its entire volume in the body, and thence to the fibre which contains it, when it falls inevitably upon every capillary vessel, next upon the blood there, and eventually upon the heart, to affect its action and modify the pulse. In like manner extensive local injuries seriously affect the brain, and

so do extensive inflammations of the lungs, or liver, or bowels, or skin as in erysipelas. All these circumstances require discriminating skill and tact on the part of the physician; and when he is in possession of the fact of the existence of nerve-blood as the succenturiate animating agent, or as the vice-gerent of the soul in the body, he combats the diseases of the body and the disorders of its fluids with tenfold more efficiency and satisfaction. His mind, moreover, is free from the embarrassments of indefinable terms. The evidences of nature are at his disposal, so that he need not fear any chimerical imputation; and in the disturbances that fall in his way to rectify, he beholds the dispensing hand of mercies with which he has to co-operate, for nerve-blood and its fibre are co-efficient in maintaining what they fabricated.

To return to cold applications, they are useful in all serious nervous seizures, as in apoplexy, convulsions, and preternatural accumulations of heat in different parts of the brain. The object is to lessen or to prevent effusion of blood and of serous fluids, which would interfere with the all important action of the brain. They co-operate with bleeding, leeching, and cupping, to reduce congestion and fulness, and, so to lessen the liability to augmentation of pressure on the brain to a fatal issue.

Caution, however, is requisite with this measure as with every other, for I believe it is applied sometimes to an excess that maintains the state of torpor and stupor for which it was at first employed. I have known a bag of ice kept for several hours on an infant's head which could not be tolerated by an adult patient's hand, for

the torturing pain it would produce;—here, indeed, the remedy becomes worse than the disease. Alas, for helpless infancy! it is exposed to many an evil, as well as to many an error!

I was called to see a child that had fallen from its nurse's arms as she was standing at the doorway of a first-floor room, looking into a mews. The child fell upon its head, and was taken up, bleeding at the mouth, nose, and ears,—it was senseless and motionless, but free from convulsive movement, the stupor of concussion was its then condition. There was scarcely any pulse, the breathing also was very slow and heavy; every nerve emanating from the cerebral masses was as their vesicular centres and origins, namely, torpid and insensible. It was fourteen months old. I watched for a re-action. Had it not occurred the termination would have been fatal. I held aloof from stimuli of every kind, feeling that the re-action would of itself furnish enough for me to do in moderating its force, especially as there was no deficiency of animal heat. As the pulse began to rise I commenced the application of leeches to the temples—fourteen were applied to keep down the rising pulse. In about thirty-six hours, the pulse and heat of skin were increasing despite the cold which was also diligently applied to the scalp, and seven more leeches were ordered. Every capillary vessel was kept free from congestion,—the temperature of the skin and the state of the pulse were the two points mainly attended to,—the mildest nutriment was cautiously administered; no bad symptom whatever presented itself; natural respiration and sensibility returned.

The bones of the scalp seemed to crepitate under my

fingers, on examination after the accident, but I was inclined to refer this sensation to the infiltration of the integument with effused fluid. The regulation of the bowels was an easy affair. Had the case not been treated in this manner, the reaction must have proved injurious to the much damaged capillary vessels, which could not have safely tolerated their re-impulsion to a congestion that would then have resulted in effusion for their own relief, but in peril for the welfare of the brain.

Effusion of any kind upon the surface of the brain is a very dangerous condition. A hard, quick pulse, and a hot head, an irritable temper, the night not passing over without a scream or two, dark-coloured alvine evacuations, and clear red-coloured urine, are conditions of childhood not to be disregarded by a parent, though they are often neglected till it is too late to avert a terrible mischief, as a convulsion and its usual subsequent course of trouble. Here the blood has been for a long time getting into a bad state by reason of an unhealthy condition of the brain, and so aggravating the cerebral disorder, with fourfold intensity, until it is surcharged with morbid fluids which induce convulsions correspondently and inevitably. Looking back to my experience in the treatment of these affections, the most successful course has been to follow the indications of a hot head, and a quick hard pulse, with a burning skin,—namely, to leech, and to purge on for yellow stools without fear; hot fomentations to the abdomen, and cold applications to the scalp, greatly contributing to this result.

There is an opposite state to all this, requiring an

opposite course of treatment; but the patient is then presenting a flabby feeling, and coldness of integument, a weak, quick pulse, but unaccompanied by an unhealthy appearance of the alvine evacuations. In this state, simple congestion of the cerebral vessels has to be combated, and relief will be obtained from the milder stimuli and from a generous diet. A low vitality of blood is here indicated, and a cerebral torpor prevails, which is too frequently taken for inflammatory fulness and oppression. A cold cheek is a certain sign of the propriety and the requirement of restorative medicines and food; the sleep is exhaustion, the torpor is deprivation of vitality.

The dreaded effusion may come from inflammatory strength, and also from oppressive congestion,—it, in both states, is an effect of obstructed circulation, not the disease. Dropsies in other cavities of various designation are effects also, and the remedies for them are such as remove the causes of capillary obstruction,—causes that, for the most part, are full of alarm by reason of their being seated in the elementary tissues of the organic structures.

When these effusions are removed, it is by the agency of minute doses of an active medicine or of large doses of our less active ones. Not that such removal constitutes the cure of the specific obstructing cause, though it may palliate suffering and postpone the fatal hour.

I remember attending a young man who was urging his claims to a peerage with no small amount of zeal and anxiety;—his sleepless nights, his anxious hours, his perturbation of feeling, his hopes, his fears, his life,

in short, were staked upon the issue, or rather upon the strength of his constitution. His brain was the overstrained organ, but not the weak one; it sustained the tug and strain, even as the well-tempered cable holds on to the well-grounded anchor. Alas! the mainstays of the hulk were weak—his heart weakened under its palpitating work—its membranes and well-lubricated sheaths could no longer sustain the drain upon them—they embarrassed the transit of the clear serous fluids through the widely meandering cellular channels that facilitate the great organic movements so wonderfully—a load of fluid soon accumulated in these cells, to unnatural distension, until the condition of anasarca was established to baffle more than one eminent physician of the time. Under these circumstances I took the patient upon a trial by strong friendly recommendation. He was in bed, the bed-clothes seemed as if they were covering a living butt full of water; his pulse was quick and thready—tongue white—thirst great, with restlessness and want of sleep. His case brought to my recollection that of a young lady who was under diffused dropsy from valvular disease of the heart. I failed in making any impression upon it by the best diuretic remedies I could think of. A consultation, therefore, was requested with an old and very experienced physician, who remarked that he could get rid of all the water but not cure the disease. He prescribed accordingly, and his prescription was very successful. The same prescription I resorted to for my new patient; my visit was on a Sunday, and I engaged to repeat it on the following Wednesday. As I entered his apart-

ment, he greeted my appearance by hastily drawing back the bed-curtains, throwing down the bed-clothes, and exclaiming, "Here's a leg for a boot"—suited the action to the word. I was pleased to find so great an improvement, and enquired of him what he had been doing. "Why, I took your little pills, to be sure, and I cannot compare the commotion they produced in me to any thing better than a meeting of creditors." The prescription was as follows:—

Of Elaterium $\frac{1}{16}$ th of a grain.

Blue pill $\frac{1}{4}$ " "

Powdered dried squill root $\frac{1}{4}$ " "

Digitalis $\frac{1}{4}$ " "

Jalap $\frac{1}{2}$ " "

Extract of henbane . . $\frac{1}{2}$ " "

To be made into one pill and taken every six hours.

He was ordered also an effervescing powder with five grains of nitre occasionally, to allay his thirst. The patient was soon enabled to take exercise; and I saw no more of him for three years, when it was upon an invitation of the Physician who had preceded me in my first attendance to witness the examination of his body. He had become extremely poor, and did not like to see me again, as he had never remunerated me as he felt he ought to have done.

The immediate cause of his death was extensive pulmonary consolidation, with greatly thickened walls of the heart. I ascribe his damaged constitution of body, to impaired constitution of his blood as resulting from cerebral perplexities and mental disquietude. Care in early life, by disturbing the cerebral functions, quickly falls upon the circulatory, or respiratory, or glandular

organs, through the medium of badly constituted blood. This young man was gathered early to the innumerable host, who have set themselves under the crushing unsparing wheel of the terrific Juggernaut, whose idol-month was never known to say, "Hold! I have enough." —Such is the vast extent of function concerned in the formation and preservation of the blood; and so universal is the dependance of the body upon it, that a comprehensive intelligence is necessary to perceive how little is as yet known about its constitution. Well has it been, therefore, that doctors have differed so widely in their views and practice, because it has given a wider scope for experience, a greater range for observation, and a latitude for the liberty that delights in liberality. Without experience, observation, and liberty, indeed, the Physician's vocation, like Othello's occupation, would be gone; and that Physician who would measure every other by his own dimension of faculty, is the least among his fraternity. The fee-loving, the fee-hunting Physician, cannot but be illiberal. Narrow-mindedness, or indifference to every interest but his own, will characterize him in the exercise of his influence, as an authority of the day, to oppose the introduction of new views, however important they may be. A labour almost Herculean is requisite to displace this clog upon the progress of the life-professional; and it therefore devolves to the younger and poorer portion of a community, "who are not settled on their lees," to accomplish it.

The future, in every grade and sphere, must ever beware of the monopolizing spirit, and see to the best support of the men who best oppose it. The

conflict for gain and distinction is that which disturbs every constitution, whether social, political, or ecclesiastical; and insane are the people when they lend themselves to gratify the crafty desires of a selfish few who originate it. Our animal economy presents an opposite picture, for its conflicts consist in consigning useless materials to the lowest places, and in overcoming the obstructions of congestion that originate in a departure from its life-giving laws. It is the best sign of freedom, when a people can uphold the principles they appreciate; and it is an indication of soundness, when they prefer those which ensure general progress rather than individual aggrandisement.

What a constitution of brain and muscle my litigious patient had! they kept entire to the last, and I remember his giving me a specimen of his great muscular strength by lifting a heavy night-chair at his arm's length, and holding it up in the air as if it were a walking stick. His brain was the strong organ at work for years to gain its ambitious end, and to postpone the period of its own. His lungs, like his heart, thickened in gradual diminution of their capacity;—the hull of the ship became water-logged, as it were; the pulmonary sails were furled; and he sank in the dark waters of this world's oblivion,—and this world's time had come to its end with him.

I will now draw this first part of my mission to a conclusion, by a reference to a case of constitutional disorder of the blood; the malady declared itself in more than one structure, and persisted with more or less intensity for many months. My patient was one of several who have honoured me with their confidence,

under their own or their family's afflictions, for the long period of twenty-five and thirty years.

He endured, about twenty-three years ago, one of the severest attacks of rheumatic fever I ever saw; it required copious bleedings and very active general treatment. At the first depletion the blood presented its watery part of the densest spinach-green colour, inso-much that the coagulated part could not be seen through it. That attack formed an era in my patient's life, which he has not unfrequently reverted to. I remember receiving his heartiest thanks on my taking leave of him, for the satisfactory way in which I had rendered the assistance of our art; and thanking him in return for the confidence he had reposed in me. From that time till the beginning of the last winter, with but slight exceptions, he has enjoyed good health. But at the commencement of the severe weather, a very harassing cough set in, which at length became so aggravated in its paroxysmal seizures, that he was compelled to seek my assistance. I found him on the 17th of March, weak and pallid, with a fluttering and irregular pulse, a dry and dirty tongue, short breathed, and scarcely able to speak without a violent fit of coughing, that caused the blood to mount to his head and face to their deep suffusion; the cough had kept him awake for many nights. He was constantly suffering under laryngeal irritation, with a sense of his uvula falling down to produce it. For this state of things I prescribed:—

Firstly,—a large opiate plaster upon the front of the chest.

Secondly,—a mixture of one drachm of liquid acetate of ammonia, two drachms of camphor mixture, one-sixth

of a grain of the acetate of morphine, with a little syrup of marsh-mallow, and mucilage of acacia, in an ounce of water,—every six hours.

Thirdly,—two pills, consisting of extract of henbane, compound scammony powder, compound colocynth pill, and Castille soap,—in doses of two grains every night.

A stranger to the constitution of my patient, would have been alarmed by the intermitting action of the heart, and by the state of the larynx which would contract during a fit of coughing, to the production of a noisy whooping inspiration that imparted a sense of impending suffocation. I thought of the application of caustic to the uvula, likewise of the caustic-painting process now in vogue in some professional quarters; likewise of the antimonial process, and indeed of several other empirical methods of treatment. But, as such heterogeneous practices are calculated to bewilder the judgment, and puzzle its decisions, I preferred adhering to the rules of treatment that are based upon the constitution of the blood as the primary affection, and as falling upon certain organs or structures, whether respiratory, circulatory, or digestive. Here indeed, each structure was affected, while the cerebral was intact—a very favourable consideration this, for the most part, in solving the problem of prognosis. On the 18th the patient reported his having had a better night on the whole—the morphine had effected sufficient benefit to warrant its continuance: a gentle perspiration also was a favourable result. On the 19th, complaint was made of his having sprained his ankle somehow, which made him very lame. I suspected an invasion of the gout, but my suspicion was opposed rather than seconded. I

made no change in the prescription, except to direct a foot-bath with mustard, to test the gouty tendency. On the 20th, the ball of the great toe, and the instep and anele were implicated in gouty inflammation, making manifest that the blood was charged with impurities that were fretting the lungs and heart and stomach, with which the larynx and uvula were sympathizing. The laxative pills were now beginning to tell on the liver, and also upon the patient's fears about debility; his inflamed foot was relieved by fomentations with warm litharge-water, which is an invaluable application at such times, and which is a result of my own suggestion and experience.

The diet was moderate in quality and amount, with warm sherry and water as his beverage. On the 21st, though distressed with severe paroxysms of coughing both night and day, yet they were shorter in their duration, and he obtained much more refreshing sleep. A blister was ordered to be applied across the upper part of the chest. On the 22nd, all the symptoms were mitigated, though his spirits were depressed, and he was tired of medical discipline—but his wife's good sense prevailed to back my efforts and views.

The pills continued to maintain abundant secretions from the liver, which from a green and a brown appearance, were changing to the yellow hue, in indication of a radical improvement. He was now taking a dose of the mixture at bed-time only, and an effervescent saline powder three or four times a day, with half a grain of powdered scilla-root in each: his water, which had been very turbid and scanty, was becoming clear and plentiful. His cough was much relieved also by a mix-

ture consisting of mucilage of acacia one ounce, of paregorie half an ounce, and syrup of marsh-mallow half an ounce. To the same plan of treatment he adhered steadily to the 3rd of April, when I bade him farewell, for his cough was gone, and he was contemplating a visit to his counting-house in the city the next day. In the few preceding days, one pill instead of two was taken about four o'clock in the morning, which, mild as it was, sufficed to influence the liver to pour forth abundantly of the blood's impurities, in the form of "*laudable*" bile, in relief of the uvula, larynx, lungs, heart, stomach, and foot—all which was effected without caustic, or calomel, or blue pill, or antimony, or colchicum, as the patient and his most excellent wife, and a family well schooled in the first principle of obedience, can joyfully testify. Would that every family in Great Britain could exhibit the results of obedience as prominently as this, for unity, happiness, prosperity, and many a virtue shine forth from it to my high admiration.

In a little more than a fortnight this patient had lost a very severe cough of long standing, his gouty condition, his disordered liver, his feverishly coated tongue, and his restless nights; and recovered his appetite and strength, despite an habitually irregular pulse, which he inherited from his father, who lived to a very advanced age. The prescriptions accomplishing so much may be classed under allopathic practice, though I repudiate the term, for I feel at liberty to prescribe what dose I please, great or small; and I defy homœopathy to do the like in so short a time, or at so little cost, so that my patient may fairly be congratulated

upon not falling under such a spell ; and as for irritation of the mucous membrane of the larynx, trachea, bronchia, and air cells, it was a full charge, and bad blood of a specific quality irritated this surface in particular ; nor should the air alone, whether warm or cold, be amenable to the imputation of being the irritant, to warrant the adoption of the respirator, for I am happy to say, my patient continues to breathe the same air now, as when he was coughing so violently. This, therefore, is the more instructive case, in its demonstrating that when air irritates a surface, it is because that surface is in an irritable and unhealthy condition, by reason of bad blood ; and also that on taking a deep inspiration, the circulation of the blood is affected, the vessels themselves striving with all their strength to excrete the irritating matters that choke them, and which interrupt the easy transit of the purer parts of the blood. Not unfrequently indeed, will a thought, as well as a host of other exciting causes, bring on a fit of coughing under such circumstances ; coughs so arising, must be met by varied treatment according to the varying nature of the causes, instead of by the much advertised lozenges and drops, which give a cheap passage to thousands from the shores of time to those of eternity. In the present case, the pills were the best for the cough, though who would call them cough pills ? and at length one instead of two, sufficed to keep the liver busy in its friendly work for the welfare of the lungs. I may remark that diarrhœa, which appears in the more advanced stages of consumption, mostly relieves the accompanying cough, though it is only an attempt at its cure ; to which end the wise economy of nature makes many other fruitless efforts ;

nor will we except the cough itself, for this is an effort to get rid of an obstruction to respiration, as well as of an indigenous tubercle, or nasty pus, or frothy mucus. Even the bad sweats are exhalations of impurities, which have become so by reason of bad assimilation by a bad constitution; whilst the ulcerated bowels are consequences of sharp corroding humours, engendered in the now viciously wasting body. But these subjects we only glance at on passing: they are the unfathomed depths of corporeal depravation, which a wiser philosophy than what we now enjoy can rectify. As, however, I am in the wide field of the constitution of the blood, I could not decline an allusion to the consumption which humiliates human wisdom and presumptuous art alike. This wasting disease, with tubercle for its peculiar element, will occupy my attention more in detail when I am on the subject of the Determination of the Blood.

Nature, constitution, and determination of the blood are three several points for consideration, vitally affecting the well-being of the animal economy; they scarcely admit of separation when any organic function is examined, either as to its healthy or unhealthy manifestations. The illustrations which are adduced in reference to them, are as pictures drawn from daily occurrences, they are not the argument, but the demonstration, consequently, as I proceed, I feel at liberty to revert incidentally, as heretofore, to the diseases, and actions, which the animal body presents, notwithstanding my having already discussed them more or less imperfectly.

Thus gout, rheumatism, and many other disorders

will be adverted to again for some especial purpose, though chiefly to illustrate the important point of the determination of the blood.

I will further remark, that in attempting to impart to the non-professional portion of the public an idea of the extent of study and observation that is necessary to constitute a medical practitioner, I cannot overlook the fact, that a general or family prescription is required at the hands of the medical profession. Such requirement has been responded to only by a non-professional party, in the shape of advertising competition, and under the protection of a government stamp. The ingredients, however, are made both a mystery and a monopoly, alike unsafe and discreditable. The danger arises from the impossibility of effecting a due admixture of the several articles which enter into the composition of pills, when large quantities are dealt with in the same operation. Drugging the community by secret compositions, under a sanction that requires the profession itself to publish, and be responsible for, all its own formulæ, is the discreditable part of the affair.

To meet the demand, a "Physician for All" offers a prescription which can be supplied and prepared by any Dispenser of Medicines in Great Britain:—

Take Powdered Rhubarb,

Compound Colocynth Pill,

Extract of Chamomile, and

Spanish Soap,

of each twenty grains, and form them into twenty pills.

One pill will prove a quickener of digestion; two pills, moderately laxative; and three, purgative; they may be taken at any time, and repeated at discretion.

Thus may every family and every individual be provided with a prescription of proved efficacy, of evident value, and positive safety; and thus may the stamp of utility and honour, supersede all mercenary craftiness.

In offering, in this manner, a prescription for a very general purpose, I may appear to be yielding to a requirement that will not confine itself to such purpose only. On this plan I might have to furnish a formula for every common malady, so that I could not be justified, on any ground, in giving the public a prescription at all.

This reasoning, however, does not square with professional practice. Of late years the profession has deluged society with treatises on specific maladies; no slight gain has accrued to the respective authors: in many instances, a single organ is usurped for special treatment. Fame comes from the secret chambers,—either of the heart, or of the brain, or of the liver, the kidneys, or the skin. A dismembered man, and not man in his entirety, is thus studied and prescribed for; so that for this partitioned subject there is no lack of empirical treatment. This form of liberality is too winning to be intolerable; but to meet a common necessity by a common prescription, is a form of liberality that is so hostile to the interests of quackery, and, therefore, so friendly to the honourable interests of the medical profession, that a “Physician for All,” can never hesitate to wield a well-polished weapon, as it may be required, either for competition with the specialist, or to the dismay of the quack.

I now close this my first *curriculum*. I am prepared for a second; in which, whilst continuing my disquisitions on the constitution of the blood, I shall gradually introduce the interesting subject of its determination,—embracing, as it does, the organization to which it is determined for general and specific uses.

To my readers, therefore, I do not say farewell, but I commend them to the principles which are ever operative in the animal economy, and which tend to influence the mental economy also, so that there may be a *mens sana in corpore sano*, or, a full correspondence and agreement between the body and the mind, as well as between the body and the soul.

Selfishness and degradation are ever coincident. Though self-preservation is assuredly the first law of nature, yet if it works for itself alone, its economy presents no more than does the circulation of a worm; but if it respects the welfare of others besides its own, it regenerates the nature and improves the constitution of our being. The mental economy in this ease, coincides with the first law of life, and a healthy circulation is secured for it, which ceases not with the death the physician would postpone but cannot avert.

Philosophy, with all its ratioecination, can never separate the physical from the mental constitution of man. Its disciples, with scalpel, with crucible, and microscope, have investigated almost every object of sense, to the exclusion of invisible influences, and they have recorded a world of observations of great value to the physician, properly so called; but when each subject is in its natural situation and relation, it is seen to take a part in a circulation that is an evidence not only of an

invisible Life, governing all things according to order and truth, but of other agencies also, of subordinate power and influence.

To order and truth, as principles essential to the healthy constitution of every man, "The Physician for All" must defer in full subserviency; they work universally in the wide domain of creation. The power that is free to oppose them, has opposed them to its own dishonour and misery. The power that is still free to coincide with them, may do so, to its own honour and happiness. It is free to be a demon of darkness, or an angel of light. It is free to accept or reject the strong evidences of nature, even as it is free to accept or to reject the gracious influences of Revelation. It is a power commensurate with the beneficent aims of paternal goodness for its happiness; adequate to the enlightening aids of Divine Wisdom for its intelligence; and favoured by an Omnipotent Providence to maintain it a human nature absolutely. On this nature, assuredly, as on the chaotic waters, will the Spirit of God continue to move, for its perpetual re-creation and re-newal. To contribute to its health and to its welfare, is the humble effort of a "Physician for All," and to its soundness of constitution he would ever say, "*esto perpetua.*"

11, Great Cumberland Street,
Hyde Park.
May, 1855.

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ERRATA.

- Pago 54, line 17, *for parla vaga read Par Vagum.*
 ——— 75, — 29, *for combinations read combinations.*
 ——— 77, — 11, *for multitudes read multitudes.*
 ——— 93, — 7, and page 119, line 12, *for synonymous read synonymous.*
 ——— 100, — 29, *for by philosophy read by a philosophy.*
 ——— 122, — 8, *for whoof read woof.*
 ——— 172, — 16, *for mammary read mamillary.*
 ——— 176, — 2, *for Same read same.*

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"A disquisition on such a subject, from the pen of so accomplished a physician as Dr. Spurgin, cannot but be interesting to the profession; and, as the author's views are in some important points perfectly original, differing essentially indeed from the commonly received opinions, we feel it incumbent upon us to give a short analysis of the contents of the volume.

. . . . "The style is, on the whole, clear and simple; the arguments are well sustained, and the conclusions sound and philosophical; and we cannot but congratulate the profession upon the timely appearance of a treatise on a difficult subject, well calculated to direct to some useful purpose the spirit of sceptical inquiry which pervades the minds of many of our younger brethren. . . . These lectures are the produce of a sober and well-furnished mind; and while they are quite up to the mark of modern science, they betray none of that restless intolerance of established doctrines, which has unsettled the minds of so many transcendental thinkers and would-be philo-

sophers. We commend them to the attention of all who are interested in the investigation of the subject of which they treat."—*Association Medical Journal* March 11, 1853.

"The object of these lectures appears to be to consider the blood as the vital principle of the body, and all the diseases incident to human nature, as produced by alterations in the quantity or quality of this fluid. This view, which is in accordance with most modern views of pathology, is very ably illustrated by Dr. Spurgin in the course of lectures which compose the volume before us, and we may state, that the work exhibits traces, in every page, of being the production of a good scholar and a sound physician."—*Medical Times and Gazette*. March 12, 1853.

"The six lectures which form the book, were originally delivered before the Royal College of Physicians, and the calm philosophic tone pervading them, and great research displayed throughout, fully justify the selection of Dr. Spurgin for the office. . . . To Scientific men, whose judgment this work challenges, no less from the intrinsic novelty and merit of the views it enforces, than from the circumstance of the delivery of the lectures before one of the most learned audiences in England, we confidently recommend it. The general reader cannot fail to learn much by its careful perusal that will tend to enlarge his views of the grand design and mechanism of man. Every page bears the stamp of a powerful and well-disciplined mind."—*Bath Journal*, April 23, 1853.

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